DOCUMENT RESUME

ED 133 393 UD 016 643

TITLE	1973-74 Evaluation of Project Components. Hawaii District Office.
INSTITUTION	Hawaii Univ., Honolulu. Social Welfare Development and Research Center.
REPORT NO	SWDRC-R-134
PUB DATE	Jul 74
NOTE	191p.
EDRS PRICE	MF-$0.83 HC-$10.03 Plus Postage.
DESCRIPTORS	Academic Achievement; Behavioral Objectives; *Compensatory Education Programs; Educational Objectives; Elementary Secondary Education; *Evaluation Methods; Evaluation Needs; Federal Programs; Measurement Goals; Measurement Instruments; Measurement Techniques; Program Content; Program Coordination; *Program Descriptions; *Program Effectiveness; *Program Evaluation; Public Schools
IDENTIFIERS	*Elementary Secondary Education Act Title I; ESEA Title I; *Hawaii

ABSTRACT

This report describes the project components of this Elementary and Secondary Education Act (ESEA) Title I program in Hawaii in 1974. It identifies the extent of education achievement and specifies those influences which encourage positive learning behavior in children. The components of the project are: the reading resource rooms; the remedial support services, operation tutor, preschools, the measurement of academic gain, and the Peabody Individual Achievement Test. Data is available on subjects' pre and post-test results of the Peabody Individual Achievement Test, rank order of gains by schools and by grade levels, pupil attendance records etc.

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1973-74 EVALUATION OF PROJECT COMPONENTS

ELEMENTARY AND SECONDARY EDUCATION ACT

TITLE I - HAWAII DISTRICT

Principals and Instructors
Participating Schools - Hawaii District
(refer Appendix A)

Compensatory Education Section
DEPARTMENT OF EDUCATION
STATE OF HAWAII
Superintendent - Teichiro Hirata

HAWAII DISTRICT
Acting District Superintendent - Dr. Kiyoto Mizuba
Compensatory Education Coordinator - Laurence Capellas

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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UD 016613

PREFACE

Evaluation of the Elementary and Secondary Education Act (ESEA) Title I programs of Hawaii District, 1973-74, was provided by the Social Welfare Development and Research Center (SWDRC), of the University of Hawaii, Manoa Campus. This report was prepared and submitted in accordance with the Memorandum of Agreement between the State of Hawaii Department of Education and the SWDRC. A progress report of Title I programs, presented at mid-year, preceded this final Evaluation of Project Components.

The Social Welfare Development and Research Center is a University of Hawaii public service organization. While its work focuses upon delinquency prevention, program consultation, personnel training, and evaluation, the Center also introduces new approaches and techniques to a variety of human service agencies in this State. Its primary objective is to help community organizations, public and private, to establish the most effective and alternative ways to prevent and treat the socially maladaptive behaviors of Hawaii's youth. A fundamental goal of the Center's operations is to obtain and disseminate new knowledge of potential relevance to public agencies concerned with the progressive educational development of children. In addition to training and program consultation, evaluation, and research are essential elements of the Center's operating model. Program evaluations are conducted for the purpose of seeking improvements to current efforts and to propose alternative solutions for greater efficiency. Research efforts are aimed at assessing the many variables contributing to the effectiveness of approaches and to seek modifications to current approaches based upon analysis of objective data.

This final evaluation report for 1973-74 is designed around a developmental approach. To fully understand any segment of this report requires that the entire evaluation be read from beginning to end, with no one portion being

independent of any others. The narrative, analysis of data, and statistical interpretations are presented in an orderly, umambiguous, and straightforward manner. No prior knowledge of statistical measurements, tests, or project components is necessary for the reader to understand this report. Following the explanation of data and a school-by-school examination of each program are some general recommendations concerning future program development. A careful reading of the complete report, however, is essential before the significance of the recommendations and general conclusions can be realized.

The purpose of this report is not to make a blanket judgment - either good or bad - of any program, but to ascertain what causal relationships may exist between the pupils' educational success and their classroom environment. While the report presents an appraisal of data from throughout Hawaii District, the intent was not to compare and contrast one program with another. Such comparative analysis would be both impractical and unwarranted, for each program functioned within its unique geographical area and served its own specially selected pupils. The objective is not to uncover the projects' past mistakes, but to help Title I educators gain from the lessons of hindsight, an ability to foresee new approaches and apply these with a broader understanding.

Not unlike pre- and post-testing, this report is presented to indicate the progress which has already been achieved, as well as the potential for future development which lies ahead. Evaluation of Project Components was written to identify the extent of educational achievement which occurred and to specify what influences upon the children encouraged the learning behavior to arise. As this knowledge develops, more effective and benaficial approaches to education become possible.

It is apparent that the personnel of Hawaii school district have made a dedicated effort to advance the development and quality of educational services

offered to Title I children. The sincerity of these professional educators, their concern for the basic educational needs of pupils, and their willingness to work with new and innovative approaches for the benefit of the children they serve are all commendable. The personal integrity and concern for program development which the Hawaii District personnel have shown are reflected in the fact that a third party evaluation of Title I projects was requested. This is a sound and justified decision which indicates objective insight and consideration for future program implementation. Research has shown that self-evaluation by program implementors soon results in subjective and laudatory appraisal that has little basis in fact and no significant effect toward further program innovation.

We were very impressed throughout this past academic year with the evident dedication, motivation, and sincerity shown by Title I personnel in the 14 ESEA Title I schools of Hawaii District. Cooperation and active support of evaluation procedures were offered to the SWDRC from each school's Title I personnel.

This report was initially drafted by David C. Swanson, SWDRC Evaluation Specialist, under the supervision and direction of Robert T. Omura, Assistant Director and principal program consultant to the schools. Assistance with data collection was rendered by Dr. Jerry Johnson and students at Hilo College. Selected members of the SWDRC staff also assisted with data analysis and participated in the formulation of recommendations.

Jack T. Nagoshi, Director
Social Welfare Development
and Research Center
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APPENDIX A

EVALUATION

As ESEA Title I programs are funded by the Federal government, these programs are required to meet the criterion of evaluation. The connotation behind the word "evaluation" often - but erroneously - suggests to the teacher a threatening or awkward situation, that of being told how and how not to teach. This uncomfortable situation which the teacher experiences is compounded by the social expectation that the teacher already knows, or should know, all there is to know about teaching. Although such anxiety on the teacher's part is not justified by fact, the response is often "But do we really have to prove everything with facts and figures?" The answer, certainly, is no. It is self-evident that a classroom with appropriate teaching devices and sufficient instructional materials is better than one without any. It is self-evident that an organized classroom where every learner is actively engaged in meaningful activity is better than a noisy and disorganized one. Yet the direction and progressive success of pupils and classroom activities, in most cases, must be revealed through facts which are not so clearly self-evident.

Evaluation is not an analytical process or technical procedure of proving anything. It is not abstract, impersonal, or automatic, for such a process would constitute a mere academic exercise. There is no secret or mathematical formula which, if plugged into a classroom, could produce irrefutable proof that the children were truly learning.

Evaluation consists of assessing the needs of students and teacher, observing classroom activities, recommending alternatives, and carefully examining what actually takes place. The purpose of evaluation is not to prove, but to improve. The evaluation procedure requires measurement of academic gains and those characteristics frequently associated with academic gains. Through accurate measurement the observations and assessments become more significant

and the recommendations more viable. Statistical data gathered for evaluation isn't used as proof, but as a reliable indicator of the extent and direction of program success. Such measurement is used to suggest more effective approaches to greater program implementation. When achievement occurs in the classroom, it can be measured and associated with the classroom environment which influenced pupil behavior and produced achievement. From an analysis of the success rate and the classroom environment, evaluation is able to offer reasonable recommendations: listening posts are more effective when teacher attention needs to be dispersed, motivated pupils tend to work longer and harder than unmotivated ones, children achieve more when their parents encourage them.

To determine reliable data it must be empirical, objective, quantitative, and behavioral. To measure a learned behavior it must, first, be observable, and secondly, counted. Evaluation must not be based upon opinion, bias, or subjectivity, for the recommendations arising from them would be of very limited value. Data must be systematically gathered, carefully examined, and interpreted in light of the year's ongoing activity within each classroom. From this research arises the basis of evaluation, and through evaluation, new knowledge is gained. With this increased understanding new techniques and approaches are recommended, alternative procedures and materials are suggested, and innovative methodology is introduced. To examine various aspects of new information gained through recent educational research, it is suggested that the SWDRC 1972-73 Evaluation of Project Components be reviewed. Special attention should be given to the Introduction (pp. 1-7), An Empirical Instructional Model for the Remedial Education Process (pp. 8-13), Operation Tutor: An Introduction (pp. 29-32), Parental Involvement (pp. 80-85), Introduction to Remedial Language Arts/Reading (pp. 92-95), and Educational Assistants in the Classroom (pp. 96-98).

Evaluation assessments are made by determining a) how effective the program is, b) which variables contributed in what degree to the effectiveness of the program, and c) what modifications in approaches and techniques would be likely to increase effectiveness. Each of these questions must be answered for evaluation to be complete. As the solutions to these questions are found, greater understanding of the problems and programs designed to alleviate them will be known.

SWDRC ACTIVITIES

The Social Welfare Development and Research Center initiated evaluation services to the 27 Hawaii District ESEA Title I projects at the beginning of the 1973-74 academic year. In addition to a cover letter introducing the SWDRC to project teachers, each program received a set of specially designed assessment forms for the recording of data. Information requested by the SWDRC included data from two preschool tests, estimates of pupil behavior, the number of books read by pupils, attendance rates, letter grades received, and scores from all five subtests of the Peabody Individual Achievement Test. Similar assessment forms were again issued to each project in April for the recording of post-data, with the change scores serving as the fundamental basis for the same information (at the same time and on identical assessment forms) from similar projects provided a systematic and precise movement of program objectives.

During the first two months of the academic year a number of objectives were revised. This was done by the District Office, school principals, and project teachers, in consultation with the SWDRC. This revision provided greater clarity, understanding, and accuracy in measuring program achievement. The alterations made in program objectives reduced the subjectivity and ambiguity which was present, replacing this with more behavioral and quantitative specifications.

From September, 1973, through May, 1974, the SWDRC visited each project approximately four times, with more numerous visits made to those programs which required further assistance. Visitations to Operation Tutor projects, which had less need for consultation or observation, were conducted less frequently. While all projects were observed and offered consultation from SWDRC, priority was given to those teachers who requested additional help. In all cases, ideas for improvement, greater effectiveness, and innovation were

offered. Data was collected and examined for accuracy, observations were carefully made, and all questions were answered.

The Center's activities included observing each classroom's arrangement and activities, instructional materials and machines, the techniques used, and testing procedures. Discussions with educational assistants, project teachers, and principals focused on the behavioral objectives, Title I guidelines, selection of pupils, and program development. Special attention was given to immediate problems arising within the classroom and to the channels of communication existing within the school. In cooperation with the Hawaii District Office group meetings of the Title I teachers in West Hawaii and Hilo were arranged and conducted for better dissemination of information between projects. Specially prepared descriptions of successful programs were presented to the groups, as well as specific questions and concerns discussed. Throughout the academic year, the SWDRC offered individual recommendations and suggestions for improvement to each project.

In an attempt to assess the impact of the ESEA Title I projects within the respective schools and to further ascertain the degree of parental involvement, a number of questionnaires were prepared and distributed. Specific surveys among principals were taken once during the Fall - relating to general information about school, its program for children with special needs and information about parental involvement and communication. A second survey requesting other information was made during the Spring. A questionnaire especially designed for parents identified with the school through the Parents and Teachers Association (PTA), the Title I Parent Advisory Council (PAC) and other related organizations, was mailed out at the mid-year point.

Questions relating to parent-teacher and teacher-teacher communications were prepared in two specific questionnaires sent to the project teachers and referring regular classroom teachers of the respective schools.

Although the results of the surveys were generally subjective in nature and not too reliable for objective evaluations, the responses did present interesting sidelights to the effect of Title I programs within the schools.

The observations and recommendations were made in order that more effective programs would emerge in the coming months and years. The long-range development of efficient and effective remedial programs was the aim of the evaluation services provided to these Hawaii District Title I programs.

ESEA TITLE I PROJECT COMPONENTS

READING RESOURCE ROOMS

Hawaii District supported 10 ESEA Title I Reading Resource Rooms during the 1973-74 academic year. While three of these projects were in Hilo, six in Kona, and one in Kau, their goals were similar: to effectively instruct underachieving pupils in the areas of language arts and reading improvement. Reading recognition and reading comprehension and listening and oral skills were emphasized.

With pupils selected for the programs first by their low test scores on standardized reading tests and secondly by teacher referral, each project was designed to offer pupils supplemental help which they could not receive from their regularly scheduled classes. Special instructional materials and devices were available in most classrooms and all, except one project, utilized the services of one or more educational assistants. All projects, to varying degrees, developed an organized and generally efficient use of classroom space. Motivational techniques, such as positive reinforcement - tangible and social - and free time activities, were used in the classroom management of all projects. In a few cases, however, this approach was only touched upon, while in other classrooms the motivating factor was a well developed and integral part of the pupils' daily activities.

The goals of all reading resource rooms were generally similar. The primary objective was that the pupils would show a learning rate greater than .1 per month in reading recognition and reading comprehension. Other objectives involved the pupils' attendance rates, behaviors, and the number of books which they read. These objectives were met, at differing levels, by most projects.

The greatest advantage to the pupils of reading resource rooms is that each classroom was relatively self-contained with its own special materials, machines,

techniques, innovative approaches, teacher, and educational assistant. This arrangement encouraged a more specific classroom organization, close supervision, direct teacher-to-pupil contact on a daily basis, and, most importantly, provided the time and opportunity for individualized instruction to occur. Through these reading resource rooms it was possible to provide each child with individual diagnosis, prescription, instruction, and evaluation on a daily or weekly basis.

Identified and selected pupils reported for specific amounts of time each day and received remedial instruction in the basic skills of reading. Depending on the number of personnel within the Reading Resource Rooms, i.e., project teacher plus one or more educational assistants, the average attendance per instructional period ranged from four to ten pupils at a time.

REMEDIAL SUPPORT SERVICES

There were three remedial support service projects in Hawaii District during the past academic year. These were the Extra Effort project at Kapiolani School (188 pupils), the Language Arts Enrichment project at Konawaena Elementary School (31 pupils), and the Alae Operation Live-In project in Hookena (16 residents). These three projects were designed to provide children with additional and supplemental help which would not have otherwise been offered to them within their normal school routine. Among all three projects there was one professional counselor and 16 para-professional assistants.

Like the reading resource rooms, the pupils receiving remedial support services were selected according to the Title I criteria of test scores and teacher referral. These projects, however, made little use of specially designed materials or machines, or of innovative teaching approaches. Rearranging classroom facilities and making maximum use of classroom space was

not possible for these projects since the assistants worked directly within the rooms of non-Title I teachers.

The objectives for these three projects were varied and numerous, including the achievement of a learning rate greater than .1 per month in reading recognition and reading comprehension, attendance rates, behavioral improvement, decreased disruptive behaviors, successful achievement on a reading skills continuum, and attaining 90% success on two preschool tests. None of the three projects had the same objectives. The general conclusion can be drawn that the children of these three programs did not achieve as well as did those involved in the 10 reading resource rooms. This apparent difference is due to the assistants' non-professional training, the supportive rather than remedial program design, and the apparent lack of direction from professional teachers especially trained and experienced in the techniques of remedial reading and language arts and delegated the responsibility for specific program implementation.

OPERATION TUTOR

Eleven Operation Tutor projects were operating throughout the 1973-74 academic year in Hawaii District. While a few projects, due to difficulties in staffing, began relatively late in the school year, all were directed and supervised by the Operation Tutor Coordinator. Approximately 190 pupils participated in these projects, with 55% of them being tutees and 45% tutors. The tutoring activity took place within either the sending or receiving teachers' rooms and, except for the Keaukaha program, all tutoring occurred during the school day. Two to three hours were reserved each week by most projects for the dyads to work together.

The Operation Tutor program was designed to provide an educational structure which would help pupils to help one another. The goal behind this activity was for both tutors and tutees to improve their academic performance through personal, tutorial interaction. This objective (gain of .1+ per month) was met and surpassed by both tutors and tutees, with the tutors improving their learning rates with gains even greater than their counterparts. This effect is primarily due to the immediate relearning exercises encountered by the tutors, as well as the necessity for them to examine the material sufficiently well before they were able to teach it. Three secondary objectives for this project consisted of the improvement of attendance rates, behaviors, and letter grades received. The first and third of these were generally not satisfied, while the second one was more frequently attained.

A special advantage of using tutorial dyads within the classroom, in addition to the pupils' faster rate of learning, is that it frees considerable teacher time for use elsewhere within the classroom. The children participating in tutorial relationships tend to quickly increase their learning rate, gain personal confidence and self-respect, repeat academic exercises until they

know them well, reduce the classroom noise level and distraction, and allow the teacher to meet with other pupils and to program specific individualized instruction. The Operation Tutor program has been successful in itself, and the innovative concept was successfully demonstrated within most classrooms. This peer tutoring component should be expanded into all Title I projects in the near future, for the greater benefit to all underachieving pupils.

PRESCHOOLS

Two preschool programs were conducted in Hawaii District during the past academic year. Both programs were in Kona, one at Holualoa School and the other at Honaunau School, with each designed to serve twenty preschoolers. The parents of these forty children all requested that their children be allowed to participate in the program. As available standardized tests for the purpose of selection criteria are not sufficiently reliable when applied to three and four year old youngsters, much of the basis for final selection was subjective in nature. Individual pupil needs and the home environment, however, were carefully taken into consideration during the selection procedure.

Both preschool programs were organized and designed around the concept of providing these children the opportunity to gain the necessary social and academic abilities required in kindergarten and the early elementary grades. Such abilities as socio-emotional, psychomotor, cognitive, and language development were the focus for these preschool projects. The goals of preschool education and child development are to a) promote and enhance the social and personal development of the child, b) instruct the child in the initial academic disciplines necessary for his progressive success throughout the elementary grades, c) provide the nutrition, recreation, social interaction, and supervision the child requires and cannot find within his home environment,

and d) supply the necessary situations through which his natural exploratory activity may readily occur.

Each preschool classroom was comfortable, clean, well decorated with art work and pictures, and supplied with sufficient instructional materials. All children engaged in play activities, physical exercises, nap time, lunch, academic work, and social interaction each day. The significance of the personal and social experiences which lead to childhood maturity were, in all likelihood, equal to the individual's growth in academic ability. In both programs, however, the children improved faster in the areas of colors, numbers, shapes, and locomotive skills, and less quickly in the more formal academic areas such as the identification and naming of upper and lower alphabet and following directions.

As most of the preschool objectives (as stated in the project proposal) are highly subjective in nature and do not lend themselves to statistical evaluation, no precise interpretation can be made regarding their attainment. All forty pupils, nevertheless, did meet and surpass those objectives which are subject to accurate measurement. The pre- and post-test data generally indicate that all objectives were probably met, for the success of these programs and the achievement of these pupils was remarkably high.

MEASUREMENT OF ACADEMIC GAIN: PEABODY INDIVIDUAL ACHIEVEMENT TEST*

The Peabody Individual Achievement Test (PIAT) was administered to each Title I pupil as a pre- and post-test, in September and May respectively. The changes (increases or decreases) between these two sets of scores presents an overview of the scholastic attainment of the pupils. Administration of the PIAT provides a wide-range measure of achievement in the areas of mathematics, reading, spelling, and general information.

The mathematics subtest measures the pupil's ability to apply mathematical knowledge to the solution of practical computational problems. This subtest does not require writing or oral responses and, as the first subtest presented, enables the tester to establish a good rapport with the pupil. The reading recognition subtest measures the pupil's ability to translate sequences of printed alphabetic symbols which form words into speech sounds that can be understood by others as words.

The reading comprehension subtest measures the individual's ability to derive meaning from printed words. The format includes a series of sentences of increasing difficulty from which the pupil first reads a passage and then selects from four illustrations the one that best conveys the meaning of the passage. The spelling subtest measures the pupil's ability to recognize correctly spelled words. To do this the pupil selects, in response to verbal cues provided by the tester. the correct one of four similarly printed words with slight variations in spelling. The fifth subtest, general information, measures the extent to which the pupil has acquired knowledge relating to himself and his environment. This subtest consists of open-ended questions that relate to general encyclopedic knowledge.

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*Dunn, Lloyd M., & Markwardt, Frederick C. Jr., Peabody Individual Achievement Test, American Guidance Service, Inc., Circle Pines, Minnesota, 55014, 1970.

The Peabody Individual Achievement Test was chosen as the standard measuring instrument for use with Title I projects because of its numerous characteristics which enhance its utility as a measure of scholastic achievement. First, the PIAT was designed as a individually administered test. As group tests are able to measure only a relatively narrow range of grade levels, or are diagnostic instruments in a specific subject matter, the PIAT is not prone to these limitations. The test enables the examiner to establish a personal relationship with the pupil that helps to elicit a more optimal performance from him, especially when the pupil is less motivated toward school and academic achievement. The PIAT, as an individual test, also allows closer monitoring of pupil behavior, encourages less guesswork, and permits more accurate measurement of the achievement exhibited by immature and underachieving pupils.

The PIAT is a wide-range instrument extending from kindergarten through high school, with the items arranged in order of difficulty. This feature makes it possible to locate quickly, and administer only, those parts of the test that are within the critical range of difficulty for the pupils. With this attribute, some of the major faults of group tests are avoided: boring brighter students with items which are too easy for them, and frustrating slower ones with items beyond their abilities.

A third advantage of the PIAT is that it was designed to be a screening test which could be quickly administered and scored, typically taking only thirty to forty minutes. No special lead pencils, computer programming, or sets of coded scoring stencils are necessary. The pupil's successful progress through the test is scored at the same time he is being examined.

The PIAT is an untimed, power test. An emphasis on speed would be a considerable handicap for most underachieving or disadvantaged Title I pupils. The test items were not selected from specific techniques or concepts but were

balanced across traditional, modern, and functional aspects of the general curricula. This important characteristic of the PIAT minimizes the bias resulting from the particular instructional approach to which the pupil was exposed. Rather, the PIAT test items measure functional knowledge or abilities that are widely-expected educational outcomes.

Of particular benefit to Title I projects is that the PIAT was designed to be most sensitive at the lower grade levels and to decrease gradually in sensitivity with advancing grades. This was done with the belief that the PIAT would be used more often with students whose achievement is at the lower level of the test range.

A seventh valuable aspect of the test is that demonstration and training exercises are included to introduce each subtest to the pupil, thus insuring some initially successful experiences for him. These exercises are also used to teach the pupil the type of responses which are expected. Completely objective scoring, which is easily accomplished while the test is being administered, is built into three of the five subtests which are in multiple-choice format, and precise standards are provided on the other two to reduce scoring variability.

Of major significance is that the PIAT subtests are designed so that no academic skills are required other than those specifically being measured. The mathematics and general information subtests, for example, are made fairer for the pupil with reading difficulties in that no reading is required. Furthermore, the pupil does no writing on any subtest since this often inhibits his performance and motivation. The PIAT format, illustrations, and content were also specially selected to hold the interest of pupils of both sexes, from a wide variety of ages, and from differing cultural backgrounds.

Most important for its accurate interpretation, the PIAT was carefully standardized nationally on a sample of 3,000 pupils in the mainstream of

public education. The sample of pupils upon which the norms are based were chosen in proportion to the population of school-age children and based on the 1967 projected data from the Bureau of the Census. The standardization, conducted in 1969, accounted for differences of sex, age, race, socio-economic status, and urban, suburban, and rural communities. All test administrators received extensive training on testing and scoring procedures from the American Guidance Service, Inc.

The twelfth distinctive aspect of this test is that extensive formal preparation is not required for its administration. The PIAT can be administered by any professional person interested in measuring the academic achievement of pupils. Furthermore, the testing procedures are sufficiently objective so that non-professional assistants, under supervision, may also administer the PIAT. Such advantages as these make the Peabody Individual Achievement Test a sound and justified choice for use in evaluating the scholastic attainment of Title I pupils in Hawaii District.

DATA PRESENTATION & EXPLANATION OF TABLES

A general understanding of the statistical data is required before any portion of it can be applied to specific projects, and a concise explanation of these tables is provided. This description of the tabled data does not discuss individual programs or their specific achievement rates, but interprets how the data was used for this purpose. A school-by-school examination of each project, as well as data tables relating to individual projects, are presented immediately following this section of the report.

As with any test, raw scores fluctuate according to the number of test items and the ability of the individuals being tested. Raw scores, by themselves, cannot be meaningfully interpreted. The Peabody Individual Achievement Test provides four types of scores which were derived from the pupils' raw scores during the time of test standardization. These derived scores are 1) grade equivalents, 2) age equivalents, 3) percentile ranks, and 4) standard scores.

The SWDRC elected to use the first index of measurement, the grade equivalent scores, as these are the most familiar to teachers, more readily understood by educators, and least subject to statistical misinterpretation.* While using grade equivalent scores as the basis of statistical evaluation, the tabled data further minimize possible misunderstanding by including only the gains achieved. The actual grade levels the pupils were in and their grade equivalent scores achieved on pre-testing would, like raw scores, fluctuate among projects and therefore be more difficult to compare and understand. It cannot be determined, in other words, whether a fourth grader with a 3.8 grade equivalent score achieved more or less than a third grader with a 2.1 grade

*Teachers are cautioned, however, not to use the PIAT test data as a diagnostic test. The derived scores indicate the most appropriate grade level at which the pupil would function as an <u>average</u> student.

equivalent score. Only the difference between the pre- and post-test scores (i.e., gains) can give this information.

PRE- AND POST-TEST RESULTS OF PIAT

The data* indicate only indirectly where the pupils were at the beginning of the year and where they were at its end, with the significance of evaluation based on the GAINS or LOSSES (±) attained during the year. The data, presented in subsequent tables, of grade equivalent scores have therefore been refined into average monthly gains. The average gain per month was established by subtracting the pre-test score from the post-test score, and dividing this by the number of months between pre- and post-testing.

All test data from the PIAT are presented in average monthly gains in grade equivalent scores. The primary objective of most projects was for the pupils to achieve an average grade equivalent score greater than .1 per month. Achieving less than .1 per month would suggest that the pupils were falling further behind their non-Title I peers, and a .1 per month rate of achievement would indicate they were falling no further behind than where they were at the beginning of the academic year. A fifth grader's grade equivalent scores of 3.7 in September and 4.7 in May would imply that, after a year's work, he is still over one year behind the typical pupil in his grade level. For remediation to be successful the academic gains must be greater than those made by other pupils.

Another way of understanding the average monthly gains in reference to the .1+ per month objective is to view the data as month-per-month gains. A project's pupils who achieved a .13 average monthly gain in effect achieved one and three-tenths months for each month (or one-tenth) of the academic year, thus gaining .03 per month in addition to the .1 per month required of the grade level as a whole. In this case, the Title I project whose average monthly gain

*Presented on Table 1-A (Tables 1-B & 1-C for Operation Tutor)

was .13 attained an achievement rate of one year in maintaining the pupils ability commensurate with that of other pupils in his grade, and three-tenths of a year (.03 X ten) in remediation. At the end of the year the pupils were, on an average, three-tenths of a grade level closer to functioning "on average" with non-Title I pupils. This theoretical group of pupils, therefore, were not only keeping up with other pupils but decreasing the gap between their academic ability and that of other pupils.

While grade equivalent scores are relatively easy to understand, they should not be accepted as proof or absolute fact. Testing error by the test administrator may result in scores which are neither accurate nor reasonable. The standard error of measurement (reliability) and standard error of estimate (validity) of the test may also contribute to scores which are not "true" or perfect. Thus, all derived scores, such as grade equivalent scores, are approximations of the true score. When an individual attains a 2.3 grade equivalent score it is not proof that he is functioning at exactly that level. The score represents ceiling achievement or the pupil's upper limit. An independent functioning level may be within a range of half a year to one full year below the given score. It is for this reason that PIAT scores, like all achievement test data, should not be used for diagnosis or prescription of individual work.

By averaging many scores, however, the range of probable true scores for the group as a whole is considerably reduced in size. (Although no correction for testing error by the administrator is possible.) More reliability can therefore be placed upon the tabled data than would be possible when examining just one pupil's score, for while his individual score would be likely to change somewhat upon immediate retesting, the group's average score would not be equally subject to the small variations within the group. The differences between

each pupil's first and second set of scores would tend to balance out and retain the same, or nearly the same, group score.

The effect of averaging scores has the inherent drawback of using numbers that must be rounded off. For some data this may constitute losing information, while for another case the fine measurement of a hundredth or a thousandths place would not be necessary. Average monthly gains which are within two-hundredths of a point to one another are not significantly different, and may be due to chance. Such differences should not be accepted as precise fact, but as an indication of the probable academic success that was attained.

TABLE 1-A

READING RESOURCE ROOMS & REMEDIAL SUPPORT SERVICES

Pre-Post Results: Peabody Individual Achievement Test

SCHOOL	Number of Pupils		Mathematics			Reading Recognition			Reading Comprehension			Spelling			General Information			Total Score		
	Pre	Post	Pre	Post	±	Pre	Post	±	Pre	Post	±	Pre	Post	±	Pre	Post	±	Pre	Post	±
Haaheo	30	26	3.0	4.2	1.2	2.6	3.8	1.2	2.3	4.1	1.8	2.5	3.9	1.4	2.3	3.6	1.3	2.5	3.9	1.4
Hilo Union	30	29	2.6	4.2	1.6	2.2	3.4	1.2	1.9	3.3	1.4	2.4	3.1	.7	2.0	3.5	1.5	2.2	3.4	1.2
Holualoa	50	50	3.9	4.8	.9	3.8	5.4	1.6	3.6	4.5	.9	3.8	4.3	.5	2.9	4.7	1.8	3.6	4.6	1.0
Honaunau	50	50	3.0	3.6	.6	3.0	3.8	.8	2.4	3.4	1.0	2.8	3.5	.7	3.0	3.4	.4	2.5	3.5	1.0
Hookena	50	39	2.4	3.6	1.2	2.5	3.3	.8	1.7	3.1	1.4	2.4	3.0	.6	2.0	2.7	.7	2.2	3.0	.8
(Hookena) Operation Live-In	17	16	2.8	4.3	1.5	2.6	3.4	.8	2.4	3.5	1.1	2.8	3.1	.3	2.5	3.2	.7	2.6	3.4	.8
Kapiolani	55	53	3.2	4.1	.9	2.4	3.0	.6	1.9	2.9	1.0	2.2	2.8	.6	2.8	3.6	.8	2.4	3.2	.8
Kealakehe	30	30	2.7	5.7	3.0	2.1	3.8	1.7	1.8	3.8	2.0	2.1	3.7	1.6	2.7	5.1	2.4	2.3	4.2	1.9
Keaukaha	50	48	3.1	4.4	1.3	3.2	4.5	1.3	2.8	4.2	1.4	3.1	4.3	1.2	2.6	3.4	.8	2.7	4.0	1.3
Konawaena Elementary	30	33	3.3	3.7	.4	2.9	4.0	1.1	2.7	3.4	.7	2.9	3.6	.7	2.5	3.4	.9	2.7	3.5	.8
Konawaena High and Intermediate	62	61	5.0	6.0	1.0	5.4	6.0	.6	4.9	5.9	1.0	5.2	5.5	.3	5.8	6.4	.6	5.1	5.7	.6
Naalehu	30	30	1.8	2.6	.8	1.7	2.9	1.3	.3	1.9	1.6	1.6	2.7	1.1	2.1	2.7	.6	1.6	2.5	.9
District Average	51.4	38.8	3.1	4.3	1.2	2.9	3.5	1.1	2.4	3.7	1.3	2.8	3.6	.8	2.8	3.8	1.0	2.7	3.7	1.0

TABLE 1-B

OPERATION TUTOR PROJECT COMPONENTS

Tutor Pre-Post Results: Peabody Individual Achievement Test

Project	No. of Pupils		Mathematics		±	Rdg. Recog.		±	Rdg. Comp.		±	Spelling		±	Gen. Info.		±	Total Test		±
	Pre	Post	Pre	Post		Pre	Post		Pre	Post		Pre	Post		Pre	Post		Pre	Post	
Haaheo	8	7	5.7	5.2	- .5*	5.2	5.2	0*	5.2	5.7	.5*	4.8	4.9	.1	4.6	5.4	.8	4.8	5.4	.6
Hilo Union	5	5	7.4	8.8	1.4*	8.2	8.6	.4	6.5	8.1	1.6	6.7	7.5	.8	7.3	8.8	1.5	7.0	8.5	1.5
Holualoa	7	7	4.5	5.2	.7	3.6	4.9	1.3*	4.0	4.4	.4*	3.6	4.3	.7	3.8	5.6	1.8	4.0	4.9	.9
Honaunau	4	4	3.8	4.5	.7	2.6	3.6	1.0*	3.3	3.9	.6*	2.9	3.5	.6	3.4	3.2	- .2	3.1	3.5	.4
Hookena	10	7	4.0	5.7	1.7	4.1	5.0	.9*	3.7	4.4	.7*	4.1	4.5	.4	3.9	3.8	-.1	4.0	4.5	.5
Kau/Pahala	17	15	3.7	4.0	1.7	3.3	4.2	.9*	3.1	4.4	1.3*	3.4	4.2	.8	3.0	3.9	.9	3.1	4.0	.9
Kealakehe	8	7	4.1	7.6	3.5	4.5	7.1	2.6*	4.3	6.3	2.0*	4.1	5.6	1.5	4.3	6.4	2.1	4.2	6.4	2.2
Keaukaha	8	5	3.7	7.9	4.2*	4.1	6.6	2.1	4.0	7.0	3.0	4.5	6.0	1.5	3.0	6.2	3.2	3.9	6.6	2.7
Konawaena	11	8	7.0	6.6	- .4*	8.2	8.7	.5*	7.2	9.1	1.9*	8.8	8.2	- .6	8.0	8.4	.4	7.8	8.1	.3
Naalehu	9	7	9.2	9.0	- .2*	8.3	10.4	2.1*	7.1	7.4	.3*	8.7	9.2	.5	7.5	8.5	1.0	8.1	8.8	.7
District Average	91	72	5.3	6.5	1.3	5.1	6.4	1.2	4.8	6.1	1.2	5.2	5.8	.6	5.1	6.0	1.1	4.8	6.1	1.1

* = Tutored subject

TABLE 1-C

OPERATION TUTOR PROJECT COMPONENTS

Tutee Pre-Post Results: Peabody Individual Achievement Test

Project	No. of Pupils		Mathematics			Rdg. Recog.			Rdg. Comp.			Spelling			Gen. Info.			Total Test		
	Pre	Post	Pre	Post	±	Pre	Post	±	Pre	Post	±	Pre	Post	±	Pre	Post	±	Pre	Post	±
Haaheo	8	8	2.1	2.2	.1*	1.2	2.0	.8*	.5	1.6	1.1*	1.2	1.8	.6	1.8	2.5	.7	1.2	2.2	1.0
Hilo Intermediate	13	11	4.8	6.1	1.3	3.6	4.6	1.0*	3.3	4.8	1.5*	3.7	5.0	1.3	4.2	5.5	1.3	3.9	5.0	1.1
Hilo Union	15	14	2.3	3.2	.9*	2.2	3.6	1.4	.8	2.0	1.2	2.2	3.2	1.0	1.6	2.4	.8	1.9	2.9	1.0
Holualoa	7	6	2.0	2.9	.9	3.0	4.5	1.5*	2.7	4.1	1.4*	2.9	4.1	1.2	1.8	3.3	1.5	2.3	3.5	1.2
Honaunau	4	4	.6	1.3	.7	.9	1.8	.9*	0	1.4	1.4*	.8	1.5	.7	.6	1.3	.7	.3	1.5	1.2
Hookena	12	9	1.3	2.1	.8	1.6	2.0	.4*	.5	1.8	1.3*	1.3	2.0	.7	.8	1.8	1.0	1.1	1.8	.7
Kau/Pahala	17	17	2.1	2.8	.7	1.2	1.9	.7*	0	2.0	2.0*	1.6	2.1	.5	1.8	2.8	1.0	1.0	2.2	1.2
Kealakehe	7	7	1.9	4.0	2.1	1.3	2.4	1.1*	.6	3.1	2.5*	1.3	2.6	1.3	1.8	4.1	2.3	1.4	3.1	1.7
Keaukaha	8	6	2.2	4.1	1.9*	2.6	3.9	1.3	2.4	3.6	1.2	2.4	3.6	1.2	2.2	2.3	.1	2.4	3.4	1.0
Konawaena	11	7	2.8	3.1	.3*	3.1	3.6	.5*	3.1	3.7	.6*	3.2	3.7	.5	3.5	4.0	.5	3.1	3.5	.4
Naalehu	8	9	2.8	4.0	1.2*	4.0	4.7	.7*	3.1	3.6	.5*	3.6	4.0	.4	2.8	3.6	..8	3.1	3.8	.7
District Average	110	98	2.3	3.3	1.0	2.2	3.2	1.0	1.5	2.9	1.4	2.2	3.1	.9	2.1	3.1	1.0	2.0	3.0	1.0

*=Tutored Subject

AVERAGE MONTHLY GAIN BY SCHOOL

The graphs depicting the average monthly gains on the five PIAT subtests (see pages 27 to 29) show these scores for each program and the Hawaii District ESEA Title I averages. Each project's achievement can be seen in relationship to the average of similar projects, with the achievement of its pupils being above, equal to, or less than the entire District's. The overall average does not, however, represent a standard criterion. It is not a goal to reach, nor a measure of program efficiency. A project whose academic achievement was above the average does not necessarily mean the project was more effective than others, and a project whose pupils' achievement fell below the average does not confirm that it was a less effective program. Comparative analysis among projects must be interpreted cautiously, for while one program may have succeeded with fifth grade children and another achieved less with third graders, either one may have initiated the remedial work with less motivated pupils, a smaller budget, poorer facilities, no parental support, or with pupils further behind in their previous academic achievement. Given identical circumstances, one project may average less this year and may achieve more in following years.

Nevertheless, the relationship between each project's gains and the District average does represent the general strengths and weaknesses of project achievement, especially where these gains are relatively large. The larger the gain, as presented on the graphs by the distance from the average, the more confidence can be placed in the assumption that these differences are real and due to actual program implementation. Scores which are higher or lower by two-hundredths of a month's gain (equivalent to two-tenths of a year's gain), when compared to the District average, may be considered initially reliable. Differences between subtests, however, must be viewed more cautiously, for the different subject matter tends to be learned faster or slower by children of differing ages.

In order to recognize each project's achievement in relationship to the District's, the average scores do not include data from either of the two remedial support service projects. The average data represents only the ten reading resource rooms, which are reasonably comparable. As the two other projects (Kapiolani School's Extra Effort and Alae Operation Live-In) consistently scored lower than the reading resource room projects, averages including their data would have made the ten reading reoource room projects appear to have achieved more than they actually did. (Total Score average of all twelve projects was one-tenth of a year lower than for the ten reading resource rooms.) Using either average, however, five of the reading projects scored above the average and five below.

Table 2-A presents the average monthly gain in grade equivalent scores by school. Graphs for each project's average gains, in relation to the Hawaii District ESEA Title I averages, are presented in the next section (pages 66 to 140).

Operation Tutor data from the PIAT subtests, similar to that presented in the graphs of reading resource room achievement, is shown in Tables 2-B and 2-C. Since the number of tutors or tutees per project was relatively few (averaging less than eight for either), the reliability of each of the five subtest scores is significantly less than for the reading resource rooms. That is, the averaged variations of scores for eight pupils would be considerably greater than for thirty or more pupils. Graphical descriptions of this data are, therefore, not included.

The data, however, does represent the general trend of academic achievement which was made by these children, with the greater gains attained in the project's tutored subject. The tutors (Table 2-B) achieved slightly more than the tutees (Table 2-C), indicating that the aim and focus of the tutoring relationship is not directed for only the tutees' benefit.

TABLE 2-A

READING RESOURCE ROOMS

Average Monthly Gain in Grade Equivalent Scores by School

SCHOOL	PUPILS TESTED	MATH.	READ. REC.	READ. COMP.	SPELLING	GEN. INFO.	TOTAL
Haaheo	27	.16	.16	.24	.19	.17	.17
Hilo Union	24	.20	.15	.18	.09	.19	.15
Holualoa	46	.12	.21	.12	.07	.24	.13
Honaunau	50	.09	.11	.14	.10	.06	.11
Hookena	33	.12	.08	.14	.06	.07	.08
Hookena (Alae)	16	.15	.08	.11	.03	.07	.08
Kapiolani	53	.10	.07	.10	.06	.09	.08
Kealakehe	27	.43	.24	.29	.23	.34	.27
Keaukaha	47	.19	.19	.20	.17	.11	.19
Konawaena El.	28	.06	.16	.10	.10	.13	.11
Kona. High & Inter.	47	.13	.08	.13	.04	.08	.08
Naalehu	30	.11	.17	.21	.15	.09	.12
DISTRICT AVERAGE*	428 (TOTAL)	.16	.16	.18	.12	.15	.14

* For comparative purposes among Reading Resource Rooms, the District Average does not include data from Kapiolani School or Alae Operation Live-In.

TABLE 2-B

OPERATION TUTOR PROJECT COMPONENTS
Tutors' Average Monthly Gain in Grade Equivalent Scores by School

SCHOOL	Pupils Tested	MATH.	READ. REC.	READ. COMP.	SPELL.	GEN. INFO.	TOTAL
Haaheo	7	-.07*	0*	.07*	.01	.11	.08
Hilo Union	5	.19*	.05	.21	.10	.20	.20
Holualoa	7	.10	.19*	.06*	.10	.26	.13
Honaunau	4	.10	.14*	.09*	.09	-.03	.06
Hookena	7	.17	.09*	.07*	.04	-.01	.05
Kau High & Pahala	15	.24	.13*	.19*	.11	.13	.13
Kealakehe	7	.50	.37*	.29*	.21	.30	.31
Keaukaha	7	.53*	.26	.38	.19	.40	.34
Kona, High & Elem.	8	-.07*	.08*	.32*	-.01	.07	.05
Naalehu	8	-.04*	.42*	.06*	.10	.20	.14
DISTRICT AVERAGE	79 (total)	.17	.17	.17	.09	.16	.15

* Tutored Subject

TABLE 2-C

OPERATION TUTOR PROJECT COMPONENTS
Tutees' Average Monthly Gain in Grade Equivalent Scores by School

SCHOOL	Pupils Tested	MATH.	READ. REC.	READ. COMP.	SPELL.	GEN. INFO.	TOTAL
Haaheo	8	.01*	.11*	.15*	.08	.09	.13
Hilo Inter.	10	.19	.14*	.21*	.19	.19	.16
Hilo Union	14	.09*	.14	.12	.10	.08	.10
Holualoa	6	.12	.20*	.19*	.16	.20	.16
Honaunau	4	.10	.13*	.20*	.10	.10	.17
Hookena	9	.08	.04*	.13*	.07	.10	.07
Kau High & Pahala Elem.	17	.09	.09*	.25*	.06	.13	.14
Kealakehe	4	.30	.16*	.36*	.19	.33	.24
Keaukaha	6	.24*	.16	.15	.15	.01	.13
Konawaena	7	.05*	.08*	.10*	.08	.08	.07
Naalehu	8	.24*	.14*	.10*	.08	.16	.14
DISTRICT AVERAGE	93 (total)	.14	.13	.18	.11	.13	.14

*Tutored Subject

AVERAGE MONTHLY GAINS BY GRADE LEVELS

The statistical data presented in Table 3-A (Tables 3-B and 3-C for Operation Tutor) are listed by schools in alphabetical order. Of the twelve schools listed, ten represent their respective reading resource rooms and two their remedial support services. Immediately to the right of each school is the number of pupils who were both pre- and post-tested. In all but two cases, Honaunau and Naalehu, a few pupils moved out of the local school area or, for various reasons, left the Title I program during the school year. Test scored of pupils who left and the newer pupils who were admitted to the programs later in the year are not included. In addition, some pupils were not post-tested due to absence from school during the last week of testing. According to the projected enrollment of all Title I projects, sixty-seven pupils were not tested at the beginning or at the end of the year (Kapiolani School excepted since only a representative sample of pupils were tested.)

That some pupils were not fully tested is an important factor when comparing the projects' Total Score monthly gains (see pages 27 to 29) with the average monthly gains in the last column of Table 3-A. The Total Score of the PIAT was based on the number of pupils taking the test, and with this number differing between test administrations, the Total Score was not always equivalent to the average monthly score. Averaging the pupils' pre-test scores and an unequal number of post-test scores, and comparing them, does not (necessarily) result in the same score as for those pupils who were <u>both</u> pre- and post-tested. The Total Score on the graphs is an estimate of the achievement of the project as a whole, with all pupils involved being <u>either</u> pre-tested, post-tested, or pre- and post-tested. The average monthly gain represents the gain achieved by pupils who received both pre- and post-testing. In the two cases where the same

pupils were tested twice these figures are identical, while for projects whose number of tested pupils were more unequal during pre- and post-test administration the figures indicate greater variation.

The differences between the PIAT Total Score gains and the average monthly gains are seldom greater than one-hundredth of a decimal point, but where differences do occur they generally tend to be higher among the pupils who were fully tested. One explanation for this trend is that such pupils were in the Title I project throughout the full academic year, while those pupils who were not pre- and post-tested were in the project for less than nine months, and therefore achieved less.

TABLE 3-A

READING RESOURCE ROOMS

Average Monthly Gain in Grade Equivalent Scores by Grade Level

SCHOOL	# PUPILS TESTED	GRADE LEVELS										
		K	1	2	3	4	5	6	7	8	9	Ave.
Haaheo	27			.14	.16	.15	.13	.34				.174
Hilo Union	24					.13	.15	.11				.131
Holualoa	46					.13	.14	.17	.19	.15		.155
Honaunau	50	.09	.11	.08	.09	.06	.07	.17	.19	.30		.107
Hookena	33		.10	.14	.17	.10	.06	.07	0	.06		.090
Hookena (Alae)	16				.10	.09	.10		.03	.13		.091
Kapiolani	53		.08	.10	.10	.08	.11	.09				.097
Kealakehe	27			.24	.28	.29	.32	.31	.30	.31		.286
Keaukaha	47				.16	.19	.17	.20				.180
Konawaena Elem.	28					.14	.11	.22				.156
Konawaena High & Inter.	47								.12	.15	.11	.118
Naalehu	30			.14	.10	.13						.123
DISTRICT *	(Total) 428											.152

* For comparative purposes among Reading Resource Rooms, the District Average does not include data from Kapiolani School or Alae Operation Live-In.

TABLE 3-B

OPERATION TUTOR PROJECT COMPONENTS

Tutors' Average Monthly Gain in Grade Equivalent Scores by Grade Level

SCHOOL	# PUPILS TESTED	GRADE LEVELS										
		K	1	2	3	4	5	6	7	8	9/10	Average
Haaheo	7						.08					.080
Hilo Union	5							.18				.180
Holualoa	7							.05	.19	.15		.147
Honaunau	4						.06					.060
Hookena	7					.11	.07	.06	.00	.06		.060
Kau High & Pahala Elem.	15					.12						.120
Kealakehe	7							.32	.44	.39		.374
Keaukaha	7						.17	.33				.307
Konawaena High & Elem.	8										.24/.05	.133
Naalehu	8								.22	.12		.170
DISTRICT	(TOTAL) 79											.160

TABLE 3-C

OPERATION TUTOR PROJECT COMPONENTS

Tutees' Average Monthly Gain in Grade Equivalent Scores by Grade Level

SCHOOL	# PUPILS TESTED	GRADE LEVEL										
		K	1	2	3	4	5	6	7	8	9	Average
Haaheo	8		.13	.16	.13							.141
Hilo Intermediate	10								.12			.120
Hilo Union	14				.09	.11						.104
Holualoa	6	.27			.14	.13						.160
Honaunau	4		.13									.130
Hookena	9		.05	.10	.11							.089
Kau High & Pahala Elem.	17			.18	.18							.180
Kealakehe	4			.25		.28						.258
Keaukaha	6				.19	.13						.170
Konawaena High & Elem.	7					.11			.13			.116
Naalehu	8					.07	.14					.105
DISTRICT	(TOTAL) 93											.143

RANK ORDER OF GAINS BY SCHOOLS

Table 4-A (4-B for Operation Tutor) presents the rank order of project components by their average monthly gain achieved. That five of the first six reading resource room projects in this table were also reading resource rooms during the 1972-73 school year, and that five of the lower six were not, is no coincidence. The older resource rooms not only offered more remediation to their pupils this year, but capitalized upon their previous experiences.

That the project at Hookena School achieved .09 gain per month appears low and unwarranted. Concern was raised by Hookena School personnel during the month of May that pre-test administration of the PIAT (much of which occurred during the previous year) was not accurate and that testing error was apparent. From available records, however, this fact could not be determined as certain. That only 33 of the 50 pupils were both pre- and post-tested (a greater difference than in any other project) does, however, support the claim that test administration at Hookena School may have been a leading cause in contributing to this low test score.

The highly remarkable achievement rate of the Kealakehe School project was at least as unexpected as that of the lower scores from Hookena. How the pupils participating in this project achieved almost three years gain, which was 59% greater than the second most successful project, was not apparent within the classroom. While academic success sufficient to meet the .1+ objective was reasonably possible of the program, it was not evident that the pupils' achievement would nearly triple this rate. Although no reliable evidence was found to suggest that these pupils did not reach such an outstanding gain, it is recommended that Title I pupils at Kealakehe for the 1974-75 school year not be disqualified on the basis of these test scores, and that if they are once more accepted into the program they are retested with the PIAT.

An analysis of the tutors' and tutees' average monthly gains indicate that the tutors' gains generally tend to be greater than tutees', and while these differences are not great, they do refute the mistaken belief that tutoring is primarily directed for the tutees' benefit. Both tutor and tutee are able to make significant academic progress through the use of their unique, tutorial relationship.

That the tutors and tutees as a group achieved gains almost identical to the pupils of reading resource rooms is largely coincidence. While many of the tutors and tutees were also participants of resource rooms, and as a group, tended to be less underachieving than other Title I pupils, their gains are nevertheless remarkable and justified. Unfortunately, it is not possible to isolate those tutors and tutees who received no other special educational assistance. Yet their gains in academic achievement - largely due to their common use of the tutorial dyad - firmly indicate the value of this instructional approach. Not only were their achievements high, but the Operation Tutor project was considerably less expensive per pupil than any other.

RANK ORDER OF GAINS BY GRADE LEVELS

The third table concerning reading resource rooms, Table 4-A1 (Table 4-B1 for Operation Tutor), indicates the rank order of grade levels according to their respective average monthly gains. No apparent consistency of achievement through grade levels is evident, with this due to the heterogeneous classification of grade levels throughout all 12 projects. That is, most projects, whether more or less effective than others, served most grade levels, and the specific grade level gains by one were balanced by those of another.

That pupils in kindergarten, first, and ninth grades achieved lower learning rates does suggest, however, that the youngest and oldest pupils were often unable to benefit as much from the projects as were other children. The individualized instruction and motivating techniques were apparently less effective for these pupils. The sixth graders (in both reading resource rooms and Operation Tutor), who were represented by almost all projects and who were in Title I programs more often than any other grade level, achieved the greatest gains.

A similar tendency of grade level achievement holds true for Operation Tutor projects, except that kindergarten and ninth grade pupils were so few that these scores are highly unreliable. (See Tables 3-B and 3-C.) Furthermore, the tutorial relationship does not depend upon specific individualization of reading tasks, or teaching devices, and is therefore less related to grade level placement or prior experience.

TABLE 4-A

READING RESOURCE ROOMS & REMEDIAL SUPPORT SERVICES

Rank Order of Project Components by Average Monthly Gain Achieved

SCHOOL	AVERAGE MONTHLY GAIN
Kealakehe	.286
Keaukaha	.180
Haaheo	.174
Konawaena Elem.	.156
Holualoa	.155
Hilo Union	.131
Naalehu	.123
Konawaena High & Inter.	.118
Honaunau	.107
Kapiolani	.097
Hookena (Alae)	.091
Hookena	.090

TABLE 4-A1

HAWAII DISTRICT READING RESOURCE ROOMS & REMEDIAL SUPPORT SERVICES

Rank Order of Grade Levels by Average Monthly Gain Achieved

GRADE LEVEL	AVERAGE MONTHLY GAIN
6	.195
3	.156
8	.154
2	.153
7	.149
4	.143
5	.138
9	.110
1	.098
K	.090

TABLE 4-B

OPERATION TUTOR PROJECT COMPONENTS

Rank Order of Project Components by
Average Monthly Gain Achieved

SCHOOL	TUTOR AVE. MONTHLY GAIN	SCHOOL	TUTEE AVE. MONTHLY GAIN	SCHOOL	COMBINED AVE. MONTHLY GAIN
Kealakehe	.37	Kealakehe	.258	Kealakehe	.332
Keaukaha	.307	Kau High & Pahala El.	.180	Keaukaha	.244
Hilo Union	.180	Keaukaha	.170	Holualoa	.153
Naalehu	.170	Holualoa	.160	Kau High & Pahala El.	.151
Holualoa	.147	Haaheo	.141	Naalehu	.138
Kona. High & Inter.	.133	Honaunau	.130	Kona. High & El.	.125
Kau High & Pahala El.	.120	Hilo Inter.	.120	Hilo Union	.124
Haaheo	.080	Kona. High & El.	.116	Hilo Inter.	.120
Honaunau	.060	Naalehu	.105	Haaheo	.113
Hookena	.060	Hilo Union	.104	Honaunau	.095
		Hookena	.089	Hookena	.076

TABLE 4-B1

OPERATION TUTOR PROJECT COMPONENTS

Rank Order of Grade Levels by
Average Monthly Gain Achieved

Grade Level	Average Monthly Gain
K	.270
6	.236
9	.240
7	.180
2	.175
8	.165
3	.147
4	.116
5	.110
1	.100
10	.050

RATES OF GAIN BEFORE AND DURING INTERVENTION

Among the various tables of PIAT data, and numerous graphs of subtest scores, the most valuable and comprehensive information is revealed in Table 5-A (Table 5-B for Operation Tutor). First, listed in alphabetical order, are the schools where Title I programs were functioning during the past academic year. To the right of each school are the average monthly gains of the pupils in that school's project before the beginning of the academic year. To determine this figure each pupil's pre-test Total Score was divided by the number of months of academic instruction which he had received up to that time. A fourth grade pupil at the September pre-testing would have been in school three years (not counting kindergarten), or 30 months. Achieving a grade equivalent score of 2.0, his average monthly gain, or baseline rate, before the Title I program began would have been .07. Every pupil's baseline rate of learning was established, and averages for each project were recorded.

A similar procedure was used to determine the pupils' average monthly gains during their participation in the Title I project. Each pupil's pre-test Total Score was subtracted from his post-test Total Score, and the difference divided by the number of months (to the nearest half-month) between testing periods. For most projects there was a seven or seven and one-half month interval. These second-column figures show the actual academic gain which was attained by the typical pupil in each project.

Immediately to the right of these numbers is a third set of figures, with these representing the most significant of all PIAT data. This last column in Table 5-A and 5-B shows the increased learning rate of the children for which each Title I project was largely responsible. When considering testing and academic achievement only, these figures provide the most direct means of assessing program effectiveness. The increased rates of learning, which are in

addition to the baseline learning rates of the pupils prior to the programs' beginning, indicate the relationship between what the youngsters were achieving before their Title I experience and during their remedial instruction. The greater the increase in learning rate the faster the pupils were achieving an academic ability equal to non-Title I children. Similarly, with higher learning rates the better these children will be able to function within the mainstream of school activities in coming years, and, essentially, the more effective was the Title I program.

The statistical figures of Table 5-A and 5-B, as high as they are, represent only the total test score of the PIAT. This average score of the five subtests reflects the necessary and critical emphasis which individualized instruction in remedial reading must have within each school, for a fundamental ability to read is a prerequisite to academic work in general. Since the emphasis within reading resource rooms (and a primary concern of Operation Tutor) was placed on reading, the pupils attained their greatest gains on the subtests of reading recognition and reading comprehension. The Total Score, however, was not increased to its .15 average just because the two reading subtests were high, for the pupils also achieved learning rates in mathematics, general information, and spelling which were most frequently higher than their baseline rates. The pupils, whose average gain in reading was 1.7 years, could from their reading improvement better comprehend mathematical problems, understand and absorb more knowledge of their environment, and recognize and recall the correct spelling of more words. The emphasis on reading resulted in an overall improvement throughout the spectrum of academic knowledge and ability.

Similar to Table 4-A and 4-B, it is apparently no coincidence that the projects which during the 1972-73 school year were also reading resource rooms made the greatest gains and average monthly increases in gains. During that

TABLE 5-A

READING RESOURCE ROOMS

Pupils' Average Monthly Gain Before & During Their Program Participation

SCHOOL	BEFORE PROGRAM PARTICIPATION	DURING PROGRAM PARTICIPATION	INCREASE
Haaheo	.08	.17	.09
Hilo Union	.06	.13	.07
Holualoa	.09	.15	.06
Honaunau	.09	.11	.02
Hookena	.07	.09	.02
Hookena-Alae Operation Live-In	.07	.09	.02
Kapiolani	.09	.10	.01
Keaalakehe	.08	.28	.20
Keaukaha	.08	.18	.10
Konawaena Elem.	.07	.16	.09
Konawaena High & Inter.	.07	.12	.05
Naalehu	.09	.12	.03
DISTRICT AVERAGE *	.08	.15	.07

* For comparative purposes among Reading Resource Rooms, the District Average does not include data from Kapiolani School or Alae Operation Live-In.

TABLE 5-B

OPERATION TUTOR PROJECT COMPONENTS

Pupils' Average Monthly Gain Before & During Their Program Participation

SCHOOL	BEFORE PROGRAM PARTICIPATION		DURING PROGRAM PARTICIPATION		INCREASE		AVERAGE INCREASE
	Tutor	Tutee	Tutor	Tutee	Tutor	Tutee	
Haaheo	.12	.07	.08	.14	-.04	.07	.01
Hilo Intermediate	---	.06	---	.12	---	.06	.06
Hilo Union	.14	.08	.18	.10	.04	.02	.03
Holualoa	.06	.13	.14	.16	.08	.03	.06
Honaunau	.10	---	.06	---	-.04	---	-.04
Hookena	.08	.08	.06	.09	-.02	.01	0
Kau High & Pahala Elem.	.10	.07	.12	.18	.02	.11	.06
Kealakehe	.07	.07	.37	.26	.30	.19	.26
Keaukaha	.08	.09	.33	.17	.25	.08	.15
Konawaena High & Elem.	.09	.07	.13	.12	.04	.05	.05
Naalehu	.13	.08	.18	.10	.05	.02	.03
DISTRICT AVERAGE	.10	.08	.17	.14	.07	.06	.07

academic year Hilo Union, Holualoa, Kealakehe, Keaukaha, Konawaena Elementary, and Konawaena High and Intermediate Schools also served their Title I pupils through reading resource rooms. The other six schools had either remedial support service projects or no remedial project at all. Yet during the past academic year, 1973-74, the six projects with at least two years experience achieved significantly greater gains than did the latter six. (Two of these six programs, however, at Kapiolani School and Alae, were not reading resource rooms.)

While both the older and newer projects served children with insignificantly different baseline rates (.075 and .082 average monthly gains, respectively, for a difference of .007), the six more experienced projects averaged 1.7 years gain while the beginning projects achieved 1.1 years gain. Even more remarkable is that the average learning rate increase was .95 years for the experienced projects and .32 years for the less experienced, with the first six programs attaining an increased rate triple that of the others. Although the gains made by the Kealakehe project seem extraordinarily high, thus increasing the average performance of these projects, the comparison of success with experience (and their highly positive correlation of one another) remains valid without including these scores. It is not possible, however, to isolate the causes behind this unusually high success of the older programs, other than to attribute it to previous experience. Whether this greater effectiveness was due to the teachers' classroom experience (not likely, since two of the teachers were new to the Title I programs during the second year), the consultation and evaluation services provided, better teaching materials and machines, or the coordination of programs, cannot be determined from their interacting effects.

The last of the tables involving PIAT data from reading resource rooms, Table 6-A (Table 6-B for Operation Tutor), indicates the percent of pupils in each project whose achievement during the school year was above their baseline

rates and, secondly, above .1 average monthly gain. These percent figures represent those pupils who were above their baseline rates and average monthly gains. As the individual baselines were nearly always below .1+ monthly gain, the percent of pupils surpassing their baseline rates tended to be greater than the percent reaching the objective criteria of .1+ per month. Again, the more experienced reading resource room projects achieved higher percents than did those which were initiated during the past school year, with the two remedial support services attaining the least success of any.

TABLE 6-A

READING RESOURCE ROOMS

Percent of Pupils Above Baseline Rate & .1 Average Monthly Gain

SCHOOL	NO. OF PUPILS TESTED	% ABOVE BASELINE RATE	% ABOVE .1 AVERAGE MONTHLY GAIN
Haaheo	27	81	81
Hilo Union	24	96	71
Holualoa	46	80	67
Honaunau	50	62	40
Haaheo	33	67	42
Kapiolani	53	53	36
Kealakehe	27	100	96
Keaukaha	47	85	81
Konawaena Elementary	28	86	71
Konawaena High	47	79	55
Naalehu	30	73	53
Alae Operation Live-In	16	69	31
DISTRICT AVERAGE*	428 (total)	79	64

*For comparative purposes among Reading Resouce Rooms, the District Average does not include data from Kapiolani School or Alae Operation Live-In.

TABLE 6-B

OPERATION TUTOR PROJECT COMPONENTS

Percent of Pupils Above Baseline Rate & .1 Average Gain

SCHOOL	NO. OF PUPILS TESTED	PERCENT ABOVE BASELINE RATE	PERCENT ABOVE .1 AVERAGE MONTHLY GAIN
Haaheo	15	53	67
Hilo Intermediate	10	80	60
Hilo Union	19	63	58
Holualoa	13	77	69
Honaunau	8	63	38
Hookena	16	63	38
Kau High & Pahala Elem.	32	69	69
Kealakehe	11	100	100
Keaukaha	13	85	35
Konawaena High & Elem.	15	53	53
Naalehu	16	38	25
DISTRICT AVERAGE	168 (Total)	66	60

TEACHER-ESTIMATE OF PUPIL BEHAVIORS

Table 7-A (Table 7-B for Operation Tutor) presents the final results from the Project Teacher Behavioral Estimate Form (Operation Tutor Behavioral Estimate Form, for Operation Tutor). The scores, listed by the school of the Title I project, are the average pupil scores per question. A YES response on the estimate form was assigned two points, an UNCERTAIN response one point, and a NO response no points, with an average score per question of 2.0 being the highest possible, and zero being the lowest.

The table immediately following these final results, Table 8-A (Table 8-B for Operation Tutor) shows the pre-post increases from the estimate form. (For the initial results of these estimates, see Table 7, p. 15, or Table 11, p. 19, of the SWDRC Mid-year Progress Report for 1973-74.) As the name of the behavioral estimate form implies, this measurement of pupil behavior was a subjective estimate at best. No assumptions regarding its validity or reliability can be made, and no concrete conclusions may be drawn from it.

Nevertheless, upon examining the data it can be noted that the teachers of the six projects which during 1972-73 were also reading resource rooms, estimated their pupils' behavior to improve by .58 of one point. The teachers of the other five projects (Alae not included here, but provided with its own behavioral estimate form), who were less experienced in remedial reading and behavioral management techniques, rated their pupils as improving only .46 of one point. While the difference between these increased scores is not statistically convincing, it does add evidence to the apparent fact that experience, training, consultation, evaluation, and coordination do have a decisive influence upon the effective outcome of program development.

A second notable aspect shown in the results from Table 8-A is that questions two, five, and eight ("Good study habits", "Completion of assigned tasks on time",

and "An ability to follow directions accurately".) had the greatest increase (.7) while the third question ("Good cooperation with project teacher") had the least (.3). The subjectivity of estimating becomes most obvious with this disparity, for while the pupils increased their work and improved their study habits, they weren't, apparently, doing what the teachers wanted. The low rating of pupil cooperation probably reflects the level of frustration felt by teachers, and has little to do with whether the pupils were actually cooperating or not. That the pupils improved their work and behavior, however, is firmly supported by the evidence of their tested achievements.

TABLE 7-A
READING RESOURCE ROOMS

Final Results From Project Teacher Behavioral Estimate Form

Average Pupil Score Per Question

SCHOOL	Good social interaction with others.	Good study habits.	Good cooperation with project teacher.	Good cooperation with other students.	Completion of assigned tasks on time.	Appropriate behaviors in project class.	Good attention and interest in his work.	An ability to follow directions accurately.	AVERAGE
Haaheo	1.9	1.5	2.0	1.9	1.7	1.6	1.6	1.3	1.7
Hilo Union	1.6	1.7	2.0	1.7	2.0	1.6	1.6	1.5	1.7
Holualoa	1.9	1.6	1.8	1.7	1.8	1.8	1.8	1.8	1.8
Honaunau	1.8	1.7	1.8	1.9	1.6	1.8	1.7	1.7	1.8
Hookena	1.8	1.5	1.7	1.8	1.5	1.7	1.6	1.4	1.6
Kapiolani	1.8	1.3	1.9	1.9	1.5	1.8	1.8	1.4	1.7
Kealakehe	1.8	1.4	2.0	1.9	1.2	1.0	1.5	1.1	1.4
Keaukaha	1.8	1.6	2.0	2.0	1.7	1.9	1.7	1.7	1.8
Konawaena Elem. RRR	1.8	1.6	2.0	1.8	1.8	1.8	1.7	1.6	1.8
Konawaena Elem. LAE	1.6	1.0	1.5	1.5	1.0	1.5	1.2	.9	1.3
Konawaena High & Inter.	1.7	1.6	1.9	1.7	1.3	1.4	1.4	1.9	1.6
Waalehu	1.7	1.0	1.9	1.6	1.2	1.8	1.3	1.1	1.5
DISTRICT AVERAGE*	1.8	1.5	1.9	1.8	1.6	1.6	1.6	1.5	1.7

*For comparative purposes among Reading Resource Rooms, the District Average does not include dat from Kapiolani School or Konawaena's Elementary School's Language Arts Enrichment project.

TABLE 7-B
OPERATION TUTOR PROJECT COMPONENTS

Final Results From Operation Tutor Behavioral Estimate Forms

Average Pupil Score Per Question

SCHOOL	Good social interaction with others.	A good working relationship with his partner.	Completion of tasks on time.	Good attention and interest in his work.	An ability to follow directions accurately.	Promptness in coming to his tutorial session.	Enthusiasm for the program.	Increased motivation toward studying	AVERAGE *
Haaheo	1.8	1.8	1.7	1.7	1.7	1.9	1.8	1.6	1.8
Hilo Intermediate	1.9	1.8	1.3	1.3	1.1	1.5	1.4	1.4	1.5
Hilo Union	1.5	1.2	1.5	1.4	1.4	1.4	1.0	.9	1.3
Holualoa	1.8	1.6	1.4	1.5	1.5	1.5	1.7	1.4	1.6
Honaunau	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0
Hookena	1.9	1.8	1.9	1.9	1.8	1.8	1.6	1.8	1.8
Kau High & Pahala Elem	1.9	1.9	1.6	1.6	1.5	1.9	1.9	1.8	1.8
Kealakehe	1.8	1.7	1.6	1.5	1.1	1.1	1.5	1.6	1.5
Keaukaha	2.0	2.0	1.9	1.9	1.5	1.9	2.0	1.6	1.9
Konawaena High & Elem	1.7	1.8	1.8	1.6	1.4	2.0	1.4	.9	1.6
Naalehu	1.9	1.9	1.5	1.6	1.3	2.0	1.9	1.5	1.7
DISTRICT AVERAGE	1.8	1.8	1.7	1.6	1.5	1.7	1.7	1.5	1.7

* Maximum score attainable = 2.0

TABLE 8-A
READING RESOURCE ROOMS

Pre-Post Increases from the Project Teacher Behavioral Estimate Form

Based on Average Pupil Score Per Question

SCHOOL	Good social interaction with others	Good study habits.	Good cooperation with project teacher.	Good cooperation with other students.	Completion of assigned tasks on time.	Appropriate behaviors in project class.	Good attention and interest in his work.	An ability to follow directions accurately.	AVERAGE
Haaheo	.4	.9	0	0	.5	-.3	-.3	.3	.2
Hilo Union	.4	.9	.3	.1	1.0	.2	.2	1.0	.6
Holualoa	.1	.3	.1	.4	1.3	.6	.4	.5	.5
Honaunau	.7	1.0	.5	.7	.8	.7	.9	1.0	.8
Hookena	.7	.7	.2	.6	.6	.6	.4	.6	.5
Kapiolani	.5	.3	.3	.5	.5	.5	.6	.7	.5
Kealakehe	0	.4	.1	.7	.2	-.1	.5	0	.1
Keaukaha	.7	.8	.2	.8	.7	1.5	.9	1.0	.8
Konawaena Elem. RRR	.5	1.1	.2	.6	1.1	.7	.5	1.5	.8
Konawaena Elem. LAE	.4	.6	.2	.3	.4	.5	.5	.4	.5
Konawaena High & Inter.	.7	.8	.8	.7	.5	.7	.7	1.1	.7
Naalehu	.2	.3	0	.2	.2	.4	.2	.4	.3
DISTRICT AVERAGE*	.4	.7	.3	.5	.7	.5	.5	.7	.5

* For comparative purposes among Reading Resource Rooms, the District Average does not include data from Kapiolani School or Konawaena Elementary Schools' Language Arts Enrichment project.

TABLE 8-B

OPERATION TUTOR PROJECT COMPONENTS

Pre-Post Increases from the Operation Tutor Behavioral Estimate Form

Based on Average Pupil Score Per Question

SCHOOL	Good Social Interaction with Others	Good Working Relationship with His Partner	Completion of Tasks on Time	Good Attention & Interest in His Work	Ability to Follow Directions accurately	Promptness in Coming to His Tutorial session	Enthusiasm for the Program	Increased Motivation toward Studying	AVERAGE*
Haaheo	.2	.5	.2	1.2	1.0	.9	.8	.8	.9
Hilo Intermediate	.1	0	0	-.2	-.2	-.5	.1	.1	0
Hilo Union	-.1	.2	.5	0	.3	0	-.4	-.1	.1
Holualoa	.2	-.3	-.4	-.1	0	.5	.3	.5	0
Honaunau	1.0	1.0	1.0	1.0	1.0	.8	.9	.9	1.0
Hookena	.6	.8	.9	.8	1.0	.6	.7	1.0	.8
Kau High & Pahala Elem.	.3	.7	1.1	.7	1.3	.1	1.1	1.1	.8
Kealakehe	.7	.7	1.1	1.0	.6	.2	.6	1.0	.7
Keaukaha	.5	1.0	1.3	.6	.7	1.1	.7	.7	.8
Konawaena High & Elem.	.6	.6	.9	.8	.9	.3	0	-.2	.5
Naalehu	.4	0	.5	.2	.4	.1	.2	0	.2
DISTRICT AVERAGE	.4	.5	.6	.5	.6	.4	.5	.5	.5

*maximum score attainable = 2.0

PUPIL ATTENDANCE RECORD

Table 9-A (Table 9-B for Operation Tutor), concerning the pupils' attendance records, readily shows that no basic attendance problem existed. While a few pupils within several programs were frequently absent from school, the problem was largely due to prolonged illness. In any event, the rate of absence from school was not a significant problem, out of the ordinary, to any project, and if it was a slight problem, it involved only a few pupils, the cause of whose absence was unrelated to the organization or efficiency of the Title I project.

During the 1972-1973 academic year (the latest attendance data available from the DOE), Hawaii District's average attendance rate was 91.3% for the entire public school population. The elementary school rates were generally 3-4 percentage points lower than the rates for secondary schools - seventh grade and above. Based on the overall Hawaii District average rate, the attendance of ESEA Title I pupils was normal.

None of the 12 reading resource room projects (and only the Operation Tutor project of Naalehu School) met the objective of 5% increase in attendance from the beginning-to-end of the school year. Fortunately, however, this was not a realistic possibility to be attained. Yet, while the objective was not met, the average attendance rate generally decreased throughout the school year. Hookena School's significantly low attendance in April (76%) may be attributed to the physical damages to the Milolii Community caused by high seas. Its rate for the three earlier periods averaged 92.6%.

TABLE 9-A

READING RESOURCE ROOMS

Pupil Attendance Record

SCHOOL	AVERAGE PERCENTAGE RATE OF ATTENDANCE			
	OCTOBER	DECEMBER	FEBRUARY	APRIL
Haaheo	93	94	88	88
Hilo Union	94	92	96	90
Holualoa	96	92	92	91
Honaunau	95	88	90	85
Hookena	96	91	91	76
Kapiolani	92	95	89	89
Kealakehe	94	90	90	87
Keaukaha	94	94	95	91
Konawaena Elem. RRR	93	87	84	83
Konawaena Elem. LAE	92	83	85	86
Konawaena High	93	86	91	83
Naalehu	97	85	88	89
DISTRICT AVERAGE	94	91	90	87

TABLE 9-B

OPERATION TUTOR PROJECTS COMPONENTS

Pupil Attendance Record

SCHOOL	AVERAGE PERCENTAGE RATE OF ATTENDANCE			
	OCT.	DEC.	FEB.	APRIL
Haaheo	98	95	91	85
Hilo Intermediate	95	93	93	93
Hilo Union	94	90	94	92
Holualoa	94	91	89	89
Honaunau	95	93	91	96
Hookena	96	91	92	79
Kau High & Pahala Elem.	96	96	92	93
Kealakehe	94	81	89	88
Keaukaha	91	95	97	94
Konawaena High & Elem.	80	84	84	76
Naalehu	92	90	95	97
DISTRICT AVERAGE	93	91	92	89

LEISURE AND ENRICEMENT READING

The last table of data concerning reading resource rooms presents information regarding the number of books which the pupils read during the first and last two months of the school year. The data shown in Table 10 was not requested from all projects, and nor is it very reliable or an accurate measurement of pupil behavior. Second only to parental involvement, the measurement of pupil behavior - and especially their reading of books - is the most difficult to establish. Such reading may not only occur at any time, and be a private affair of the individual pupil, but the teacher herself cannot often judge whether the pupil really read the book or not. The teachers' subjective judgment had to be used in estimating what kind of reading occurred (e.g., skimming, recognizing familiar words, or comprehending), and how difficult the book was.

In some cases, the number of books read increased sharply, due to greater interest, ability, and motivation by the pupils, and because the books were of equal difficulty. In other projects the number of books read decreased, due to a similar interest, ability, and motivation, and because the books increased in length and difficulty. It can be assumed from the PIAT test results, however, that reading ability improved and that reading content increased in difficulty within each project.

TABLE 10

READING RESOURCE ROOMS

Average Number of Books Read Per Pupil
During Academic Year

SCHOOL	NUMBER OF PUPILS	FIRST 2 MOS.	LAST 2 MOS.
Haaheo	30	4.3	14.4
Hilo Union	30	.8	7.2
Kealakehe	30	9.1	10.5
Keaukaha	44	15.0	14.0
Konawaena Elementary	28	2.4	2.8
Konawaena High & Inter.	69	5.2	4.8
Naalehu	25	3.6	13.7

CHANGES IN ACHIEVEMENT GRADES - OPERATION TUTOR

The last table of data concerning Operation Tutor, Table 11, presents the changes of grades in the tutored subject which were received by the tutors and tutees. Data from only seven projects were available since four of the schools with Operation Tutor projects did not issue specific letter grades (in the tutored subject) due to the Hawaii English Program. This data are subjective and arbitrary, with the letter grades usually being given by teachers who did not supervise the project's activities. In a few cases the teachers of the tutored subject expected considerably more work from the tutors and tutees because they were offered extra help. Generally, however, the grades did improve, with 59% of the pupils' report card grades improving, as compared to 41% decreasing and not changing. Improvement would have been considerably greater if these children had been judged according to their previous work, and not against the performance of their peers who were academically more successful in the first place.

It is obvious from these latter tables that such subjective data can, at best, only support the quantitative and concrete measurements gained through standardized and empirical PIAT testing. While accurate and valid measurement of pupil behavior could, theoretically, be accomplished, it would require vast amounts of time and money. Reliable and objective testing instruments must therefore be given the greater preference.

TABLE 11

OPERATION TUTOR

Changes of Grades in Tutored Subject Received by Tutors & Tutees
Between 4th Quarter 1973 & 3rd Quarter 1974 *

SCHOOL	No. OF PUPILS	PERCENT OF PUPILS WHOSE GRADES: INCREASED	DECREASED	NO CHANGE
Hilo Intermediate	16	0	50%	50%
Hilo Union	19	68%	21%	11%
Hookena	21	57%	29%	14%
Kealakehe	14	79%	7%	14%
Keaukaha	15	100%	0	0
Kona High & Elem.	16	56%	13%	31%
Naalehu	16	56%	25%	19%
DISTRICT AVERAGE	16.7	59%	21%	20%

*Haaheo, Holualoa, Honaunau, and Kau High and Pahala Elementary reported that no grades were issued due to ungraded HEP.

PRESCHOOLS: TEST OF EXPRESSIVE LANGUAGE

The Test of Expressive Language (TEL)* is a short, easily administered instrument for evaluating the level of expressive language functioning of children. The child is required to respond verbally to a series of graded questions about himself and his immediate environment. The TEL consists of 75 items that can be administered in about 15 minutes to children between three and seven years of age.

The results from this preschool Test of Expressive Language are presented in Table 12. The norm scores are standardized scores derived from the properties of the normal probability curve and preserving the absolute differences between scores. The TEL norm score (Z-score) is 100 or a value of zero. The greater the distance (above or below) from "100", the wider the gap from the mean score.

While both the Holualoa and Honaunau preschools achieved norm scores well above 100, precise assessment of whether they met their objectives was not possible. The norms for the TEL were established for "economically disadvantaged" preschool pupils and the Title I criteria for preschool participants was primarily for the "educationally deprived".

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*Crowell, Doris C., Fargo, George A., and Noyes, Mary H., Test of Expressive Language, University of Hawaii, 1969.

TABLE 12

Results From Preschool Test of Expressive Language

	HOLUALOA	HONAUNAU
Number of Pupils	20	22
Average Age at Posttest	59 mos.	59 mos.
Pre-Average Norm Score	103	95
Post-Average Norm Score	126	108
Average Norm Score Increase	23	13
Pretest Average Score	34.0	27.1
Pretest Average Percent Correct	45.3	36.1
Posttest Average Score	62.8	46.7
Posttest Average Percent Correct	83.7	62.3
Increase of Pre-Post Percent Correct	38.4	26.2

PRESCHOOLS: CHECKLIST OF BASIC SKILLS

Table 13 shows the pre-post percent of criterion success achieved by the preschool pupils on the Preschool Checklist for Basic Skills. While increases were significant for both projects, the Holualoa project exhibited slightly greater gains, probably due to the academic orientation of the project teacher. (Note: The new Holualoa preschool teacher was a former Installation Teacher for the HEP in the Kona area.) Another explanation for the lesser increases by the Honaunau preschoolers was their generally higher pre-test scores which were, on the average, 12% greater than Holualoa's.

The Checklist of Basic Skills did not attempt to measure the pupils' growth in the affective domain. The lack of such a measurement may have been to the disadvantage of the Honaunau preschool project since the project teacher had previously indicated her preference to concentrate instruction in this area. The Honaunau project, never-the-less, achieved significant and respectable gains in the skill areas that were tested.

TABLE 13

PRESCHOOL PROJECTS

Pre-Post Percent of Criterion Success Achieved by Pupils on the Preschool Checklist for Basic Skills

	HOLUALOA			HONAUNAU			Posttest Scores District Average
ITEM CRITERIA	PRE	POST	INCREASE	PRE	POST	INCREASE	
Colors Identified	20	95	75	31	96	65	96
Colors Named	19	93	74	30	95	65	94
Numbers Identified	2	82	80	18	94	76	88
Numbers Named	3	78	75	20	45	25	62
Shapes	5	99	94	12	96	84	98
Locomotive Skills	51	96	45	79	99	20	98
Other Skills	33	100	67	38	73	35	87
Upper Alphabet Identified	1	79	78	5	65	60	72
Upper Alphabet Named	1	77	76	5	67	62	72
Lower Alphabet Identified	0	70	70	5	60	55	65
Lower Alphabet Named	0	69	69	5	64	59	67
Follow Directions	17	88	81	65	95	30	92
AVERAGE	7	81	74	19	74	55	78

ASSESSMENT OF PROGRAM

The assessment of various components of the Hawaii District ESEA Title I projects are presented in alphabetical order of the schools/projects. Each project component was evaluated on the basis of the following revised project objectives: (Refer to the Mid-Year Progress Report, SWDRC Report #126, for additional details regarding the Goals and Objectives.)

Objectives for Reading Resource Rooms, 1973-1974

Revised: September 6, 1973.

Schools: Haaheo Elementary School
Holualoa School
Hookena School
Kealakehe School
Keaukaha Elementary School
Konawaena High & Intermediate School
Naalehu Intermediate and Elementary School

OBJECTIVE:

RRR#1: To effectively instruct the project pupils in reading skills so they achieve, on an average, a learning rate greater than .1 average monthly gain in grade equivalent scores for reading recognition and reading comprehension between the pre- and post-tests.

RRR#2: Attendance at school of the participating pupils in this project will, on an average, increase by five percent (5%) from the months of October through December, 1973, to the months of February through April, 1974.

Note: This objective was not achieved by nearly all projects since ATTENDANCE in school by Title I pupils was not a problem. Since most of the children attended regularly - 85% to 95% - it was difficult to improve on this high rate. Attendance on a district-wide basis for the 1972-1973 school year was approximately 93-94% for elementary levels and 88-90% for secondary levels. A natural phenomena was the gradual increase in absences toward the end of the school year. Exceptions to this situation are noted on a project by project basis.

RRR#3: The personal and interpersonal interactions and behaviors of the participating pupils in this project will, on an average, increase by 36% between the end of September, 1973, and the end of April, 1974.

RRR#4*: To increase the amount of enrichment reading done by the pupils as indicated by the number of high interest/leisure reading or non-text books read.

*Objective 4 is optional for Kealakehe, Holualoa, Hookena, Naalehu, and Konawaena High School.

Objectives for Operation Tutor, 1973-1974

Revised: September 6, 1973

Schools:
- Haaheo Elementary School
- Hilo Intermediate School
- Hilo Union School
- Holualoa School
- Honaunau School
- Hookena School
- Kau High & Pahala Elementary Schools
- Kealakehe School
- Keaukaha Elementary School
- Konawaena High & Konawaena Elementary Schools
- Naalehu Intermediate & Elementary School

Goals of Operation Tutor:

The primary goal of the Operation Tutor project is to improve academic skills and increase the frequency of positive social behaviors demonstrated by the participating pupils. The intent of this project is that all students will show greater academic achievement, better grades in their tutored subjects, better attendance at school, and improvement of the individual's previous behaviors in personal and interpersonal interactions.

OBJECTIVE:

OT#1: The tutors and tutees will demonstrate an average gain (per project component) greater than .1 per month in the tutored subject.

OT#2: The tutors and tutees will demonstrate an average gain (per project component) of one grade level (report card grades) in the tutored subject between the fourth quarter of the 1972-1973 school year and the third quarter of the 1973-1974 school year.

OT#3: Attendance at school of the tutors and tutees (per project component) will, on an average, increase by five (5) percent from the months of October through December, 1973, to the months of February through April, 1974.
Note: Refer to Objective RRR#2.

OT#4: The personal and interpersonal interactions and behaviors of the children, as estimated by the project teacher, will on an average (per project component) increase by 36% between the end of September and the end of April.

Objectives for Preschools, 1973-1974

Revised: September 6, 1973

Schools: Holualoa School
Honaunau School

OBJECTIVE:

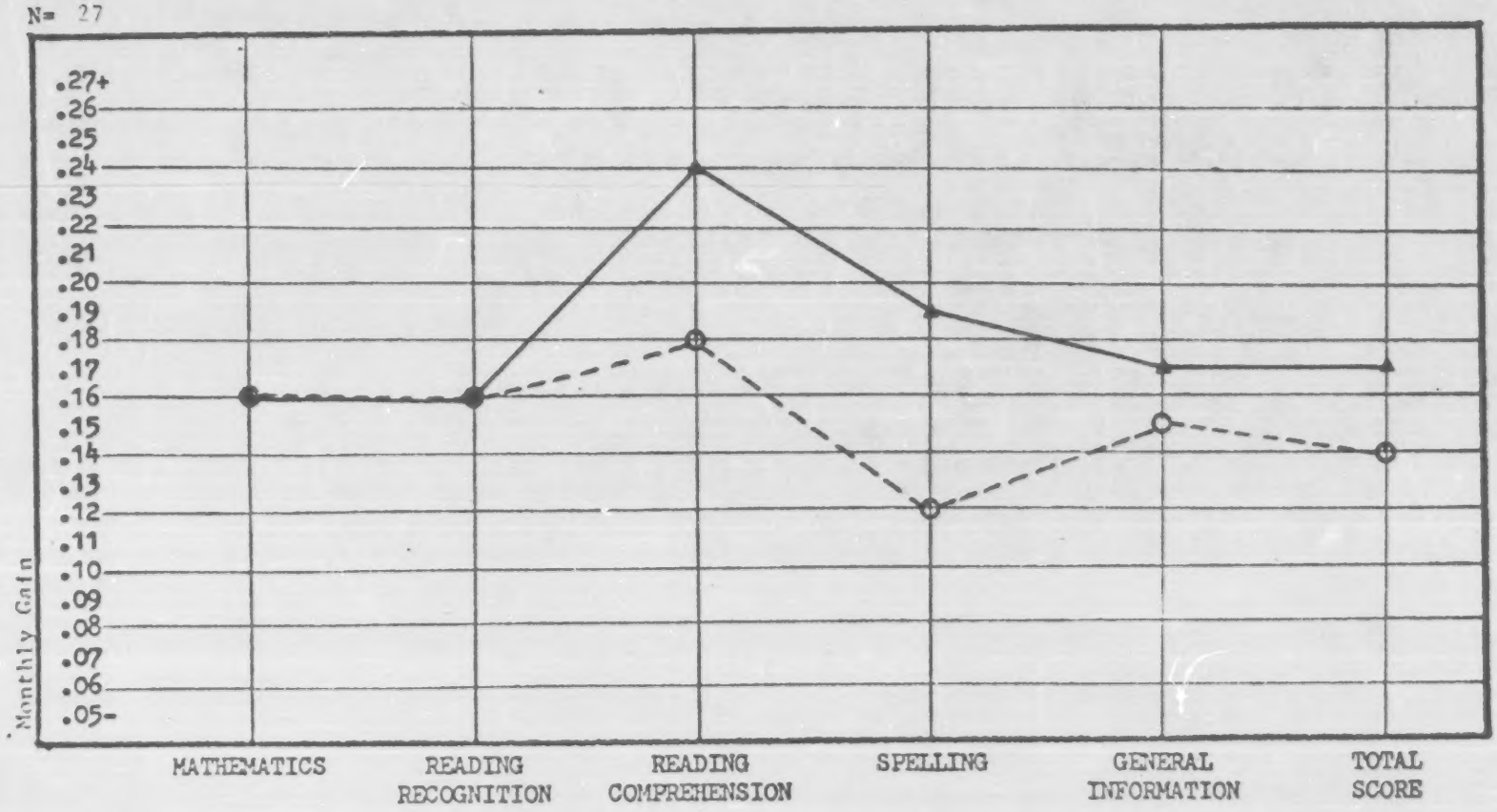
PS#1: Ninety percent (90%) of the children participating in this preschool project will improve (or remain 100% accurate) their responses in each of the twelve categories of skills on the PRESCHOOL CHECKLIST FOR BASIC SKILLS, developed and provided by the Social Welfare Development and Research Center.

PS#2: Ninety percent (90%) of the children will improve (or remain 100% accurate) their expressive language functioning by participating in the preschool project for a minimum six consecutive months during the 1973-1974 academic year.

TABLE 14

PROJECT: Haaheo Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



HAAHEO ELEMENTARY SCHOOL

OBJECTIVES: Refer to pages 66 and 67 .

Reading:

The Title I reading resource room at Haaheo School involved the teacher, a half-time educational assistant (EA), and thirty children. These pupils represented the first five grade levels of the school. According to teacher reports, the Ginn Basal Readers and Specific Skills materials, and a phonograph, tachisto-flasher, and cassette tape recorder were the most frequently used items for instruction. The classroom was sufficiently large and adequate space was provided for a liberal quantity of books and other materials and devices. During the second semester, small prizes were given to pupils who read more than twenty-five books, but systematic behavioral management techniques were generally not applied.

Although the school PTA was effectively organized and supported by most teachers and one-third of the parents, there were indications that Title I parents did not respond as well. However, parent-teacher conferences were well attended, and relatively good communication between parents and teachers was reported by the project teacher.

In all but two PIAT subtests (mathematics and reading recognition), the pupils achieved a gain well above the District Title I average during the academic year. Their achievement in SPELLING, which - except for Kealakehe School's project - was the greatest gain among Hawaii District Title I projects. It was largely due to the gain achieved by the sixth graders of this project (which was nearly three and one-half years) that this grade level ranked first in the District. The pupils' grade equivalent score increase, and the percent who scored gains above their baseline rates, were also very high.

The Haaheo School's reading resource program far surpassed its criterion objective of .1 grade equivalent gain in READING RECOGNITION and READING COMPREHENSION. The program met its fourth objective of INCREASED LEISURE READING, but the tripled rate of increase was unusually high and subject to misinterpretation. Although the BEHAVIOR ESTIMATE form was a subjective measurement, the pupils' behavior was judged as improving very little during the year.

The project can be appraised as generally successful, especially for a new project that first began operating during the past academic year. Its achievement gain was among the best in the District. With continued development and experience, this project may offer to its pupils the essential remediation in reading and language arts.

Operation Tutor: Reading and Mathematics

The Operation Tutor project at Haaheo School consisted of fifteen pupils, some of whom also participated in the reading resource room program, was located in two different rooms and directed by two part-time tutor supervisors who were regular teachers at the school. Both mathematics and reading were tutored during the morning hours of every school day.

The Haaheo tutors achieved significantly lower gains than the District average for tutors, with the objective .1 grade level gain not satisfied by them. The Haaheo tutees, however, met the READING objective, but were far short of attaining the required gain in MATHEMATICS. That the tutors of this project achieved considerably less than the tutees was atypical of the District as a whole. One reason for this is that the tutors were a few years older than the tutees (which is normal), and that they were also achieving normally prior to the program, at a rate well above their grade level - while the tutees were achieving well below theirs. The difference in ability, therefore, may have

been too great for the tutors to substantially increase their scores in the subject they tutored, and gained less from the experience. That the tutor learning rate decreased by .04 each month was very unusual and unexpected, for in no other project did tutors achieve less. This may imply that the tutoring experience was a detriment to their learning rather than a benefit.

The pupil ATTENDANCE rate also decreased significantly in this project, with 13% fewer pupils attending during the end of the year than at the beginning. Nevertheless, this project was of some benefit to the pupils. The combined academic gains of the tutors and tutees was greater during intervention of the Title I project than it was before their participation in it.

HILO INTERMEDIATE SCHOOL

OBJECTIVES: Refer to page 67.

Operation Tutor: Reading

With approximately fourteen pupils in the Operation Tutor project at Hilo Intermediate School, students met as dyads throughout the rotating schedule of the day. Two tutor supervisors (English department teachers) selected from among their own pupils tutors (from the ninth grade) and tutees (from the seventh grade). For about one and one-half hours each week, during Tuesdays and Thursdays, the dyads met in an empty room close to the school's health center. The tutored subject was exclusively reading.

As the original tutors left the project and others were included throughout the remainder of the year, their post-test data was either misplaced or not recorded. Although the baseline rate of the tutees (i.e., their average monthly learning rate determined from both pre- and post-tests) was .06, the PIAT gains on every subtest were greater than the District average, an effect matched by only one other project with a higher baseline rate.

With the tutors' data apparently lost, the indirect supervision by two tutor supervisors, the testing completed by a third party, and with an hour and one-half devoted to this tutorial work, the average gain of 1.6 years (TOTAL SCORE) achieved in academic ability was very remarkable. Assuming no pupils missed their sessions, the fifty hours of tutorial help throughout the year were outstandingly efficient in the remediation gain of six-tenths of a year.

That improvement by the tutees may not have been as great as that indicated by the test scores is suggested by the fact that ATTENDANCE decreased report card LETTER GRADES in the tutored subject (and fifty percent decreased), and the pupils' BEHAVIOR made no improvement as estimated by the teachers. There

usually occurs a relatively consistent pattern in the academic and behavioral achievement, which this project did not show. Such discrepancies indicate that the reliability of the general gains which this project achieved cannot be entirely accepted as probable fact. While the project was apparently successful, its underlying achievement cannot be fully assessed from the appearance of these test scores alone.

Buddy-Tutor:

A model Buddy-Tutor project, funded by ESEA Title I funds, began in March, 1974, at Hilo Intermediate School. This pilot effort, the first of its kind, incorporating the Buddy System model and the Peer-Tutor model, was operated through July 31, 1974, due to its late start. A final report and evaluation will be submitted on September 1st as an addendum to this report.

HILO READING CLINIC

Objectives for Hilo Reading Clinic, 1973-1974

OBJECTIVE:

HRC#1 : Improvements in the students' pronunciation of words will show an average gain of 1.2 grade level.

HRC#2 : Improve the students' ability to define a picture or word by an average of 1.2 grade level.

HRC#3 : Improve the students' comprehension of the main idea of a series of paragraphs by an average grade level of 1.2.

HRC#4 : Improve the students' ability to recall details of a series of paragraphs by an average level of 1.2.

HRC#5 : Improve the students' oral reading by average grade level of 1.2.

The Hilo Reading Clinic, funded by ESEA Title I and the State Department of Education, offered remedial services to specially selected pupils from numerous schools in the Hilo area. The Reading Clinic first began operating during the 1968-69 school year and has continued to maintain a high standard of efficiency, expertise, and productive remediation for Hilo's most severe cases of under-achieving pupils. Since it was first organized the Reading Clinic has served approximately three hundred and fifty pupils, with their reading achievement and later success in school largely due to the intense and competent instruction provided by the clinicians.

Three qualified clinicians and one full-time EA served fifty-five pupils at the Hilo Reading Clinic during the 1973-74 school year. Coming from many schools in Hilo, these children were selected from one hundred and fourteen pupils who were initially tested during the beginning of the year. The children arrived at the clinic by bus every day of the week except Wednesday. The middle of the week was used for testing, contacting other schools and teachers, completing paper work, prescribing individualized instruction, and communicating with the parents of these children. The ratio of clinician

to pupil during most periods of the other four days was approximately 1:3 per instructional period.

The facilities within the Hilo Reading Clinic were very adequate and provided the opportunity for accurate diagnosis, prescription, and individualized instruction of each pupil. With one room for an office, another as conference area, and three serving as private teaching areas, the program's organization and effectiveness were commendable. All rooms were comfortable, well supplied with instructional materials and devices, and free from outside disturbances.

In addition to the materials available were numerous teaching devices. These included cassette tape recorders, a filmstrip projector, Language Master, Tach X, Controlled Reader, Telebinocular, Audiometer, and Audio Notebook. The organization and use of the teaching machines and materials were apparently beneficial to the pupils involved in this program. All instructional materials were located in specially designated areas, were easily accessible, and frequently used.

The extent of parental involvement with the Reading Clinic as reported by the staff was also good. Several meetings were held with parents, and their questions and comments were accepted, explained, and utilized by the clinicians. Visitations by the three clinicians to other Title I reading projects were also frequently made, especially during the more critical first half of the academic year. Their visits and suggestions to other projects were very helpful, as attested to by many project teachers of the reading resource rooms. Such parental contact by the clinicians, and their personal communications with other Title I projects, were essential for the continued success of both the clinic and Title I resource rooms of Hawaii District.

The pre- and post-test data at the Hilo Reading Clinic is presented in Table 15. The September and May scores from the five tests, and the increased

gain of these scores, are shown by these tables. The average monthly gains indicate the achievement during the eight months of program intervention. The gain on every test was greater during the past year than it was during previous years. The 1.2 yearly grade level achievemnt of the project's objective criterion was surpassed. (The same objective applied to all five achievement and diagnostic tests listed.)

Future efforts at improvement should include considerations for helping the learners with greater "self-direction" and "independence" skills and more specific efforts at follow-through with the pupils' regular school teachers and their parents at home. The Hilo Reading Clinic was a very successful remedial program during the past academic year. The three clinicians and their outstanding effort were primarily responsible for this notable success.

TABLE 15

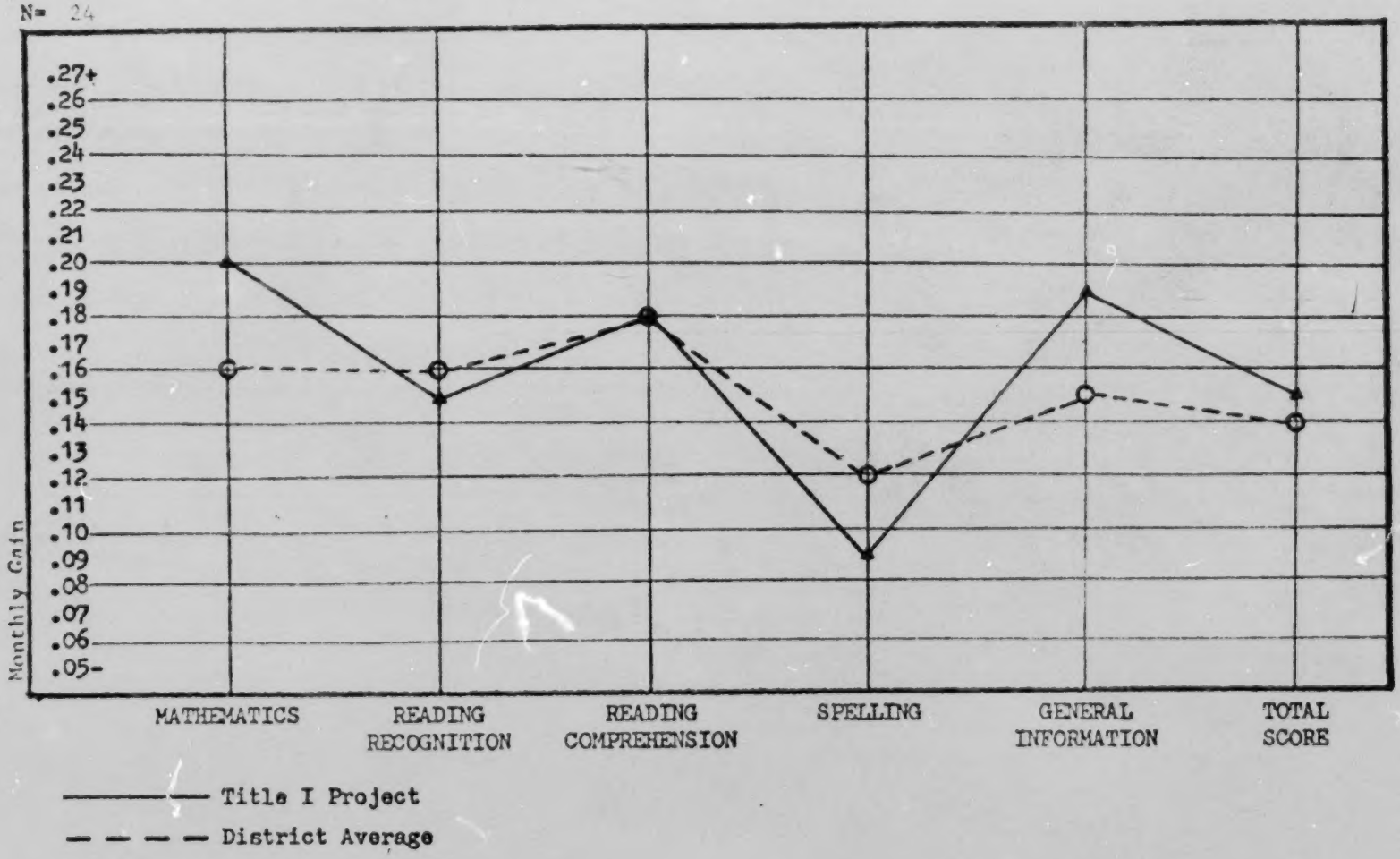
HILO READING CLINIC TEST RESULTS

TEST	EQUIVALENT SCORE		GRADE EQUIVALENT SCORE INCREASE	AVERAGE MONTHLY GAIN
	PRE	POST		
Wide Range Achievement Test (Reading)	2.9	4.8	1.9	.24
Gates-McGinite Vocabulary	1.9	3.7	1.8	.23
Gates-McGinite Comprehension	1.4	3.8	2.4	.30
Spache, Independent Level	2.9	4.7	1.8	.23
Spache, Instructional Level	2.8	4.5	1.7	.21
AVERAGE	2.4	4.3	1.9	.24

TABLE 16

PROJECT: Hilo Union Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



HILO UNION ELEMENTARY SCHOOL

Objectives for Reading Resource Room, 1973-1974

OBJECTIVES:

HUS #1: To improve reading recognition and reading comprehension achievement on the average of .1 per month gain as indicated in the related subtests of the Peabody Individual Achievement Test.

HUS #2: To increase the amount of enrichment reading as indicated by the student record of books read randomly verified by the teacher.

HUS #3: To improve the basic ability to follow teacher directions as indicated by the rate of completion of pupil-teacher learning contracts.

OBJECTIVES: For Operation Tutor objectives, refer to page 67.

Reading:

The Title I project at Hilo Union School involved the project teacher, a half-time EA, and thirty pupils from grades four, five, and six. While the classroom was adequate in size, the facilities available (e.g., lighting fixtures and electrical outlets) limited the maximum use of floor space and activity area. Desks, materials, and teaching machines, however, were generally convenient and arranged in a functional manner. Webster Cards, Specific Skills, and various teacher-made materials were identified as most frequently used from among a good selection of teacher-made and other commercially prepared materials and texts. The children also had access to a phonograph with listening posts, tape recorder, and Language Master.

The reading resource room displayed numerous charts and games on the walls to stimulate pupil motivation and interest, and to show their past achievement and ongoing success. Included were pictorial races (baseball, football, etc.), earned stars on a graph, points received, and a personalized "footprint" walking about the room for every new book read. Stars, points, small items, and free time activity were available to pupils who successfully completed their written

contracts for the week. In addition to these reinforcements and the growing self-esteem of pupils, the teacher's social praise of each child's work was given, letters and schoolwork were taken home to show the parents, and small tangible rewards were offered for especially good work or behavior.

Along with a remarkably good school newsletter which was sent home regularly, and well attended parent-teacher conferences, the project teacher maintained frequent contact with the parents of her Title I pupils. Such communication was personal, by telephone, and through the use of letters and notes taken home. The program appeared to be supported and understood by most parents.

The first objective of this project (achieving .1 per month in READING) was met and surpassed. The academic ability which increased the least was in the SPELLING subtest, although even that gain was respectable. The high gains in MATHEMATICS, GENERAL INFORMATION, and the READING RECOGNITION and COMPREHENSION subtests are all reflected in the fact that ninety-eight percent of the pupils (or twenty-three of the twenty-four who were tested) improved learning rates that were higher than their individual rates before the project's intervention.

The project's second objective, to increase ENRICHMENT READING, was also accomplished. The rate of increase was reported so high (nine times greater) however, that it may be due to inaccurate data and/or misinterpretations in reporting this information. The objective regarding the number of completed pupil-teacher contracts from the beginning of the year to the end was also attained, with eighty-five percent more contracts completed in the last two months of the year than were completed during the first two. Like the test scores, READING OF BOOKS, and number of COMPLETED CONTRACTS, the BEHAVIOR of these pupils were also estimated to improve. The reading resource room at Hilo Union School met its objectives, helped the pupils to achieve substantial

academic success, and was representative of the best Title I programs in Hawaii District.

Operation Tutor: Mathematics, Reading and Spelling

The Operation Tutor project at Hilo Union School worked with nineteen pupils from the third, fourth, and sixth grades. The tutors and tutees most frequently engaged in mathematics, but occasionally worked in reading and spelling. The tutorial dyads were supervised on a part-time basis by one regular teacher (who was also their classroom teacher), and met for thirty minutes each afternoon in several different classrooms of the school. The project appeared to be well organized and effectively managed.

While the tutees were selected on the basis of their underachievement in mathematics, and the tutors for their ability to help instruct them, the tutors attained learning rates which were greater than those of the tutees (.04 increase from baseline for the tutors, and .02 for tutees).

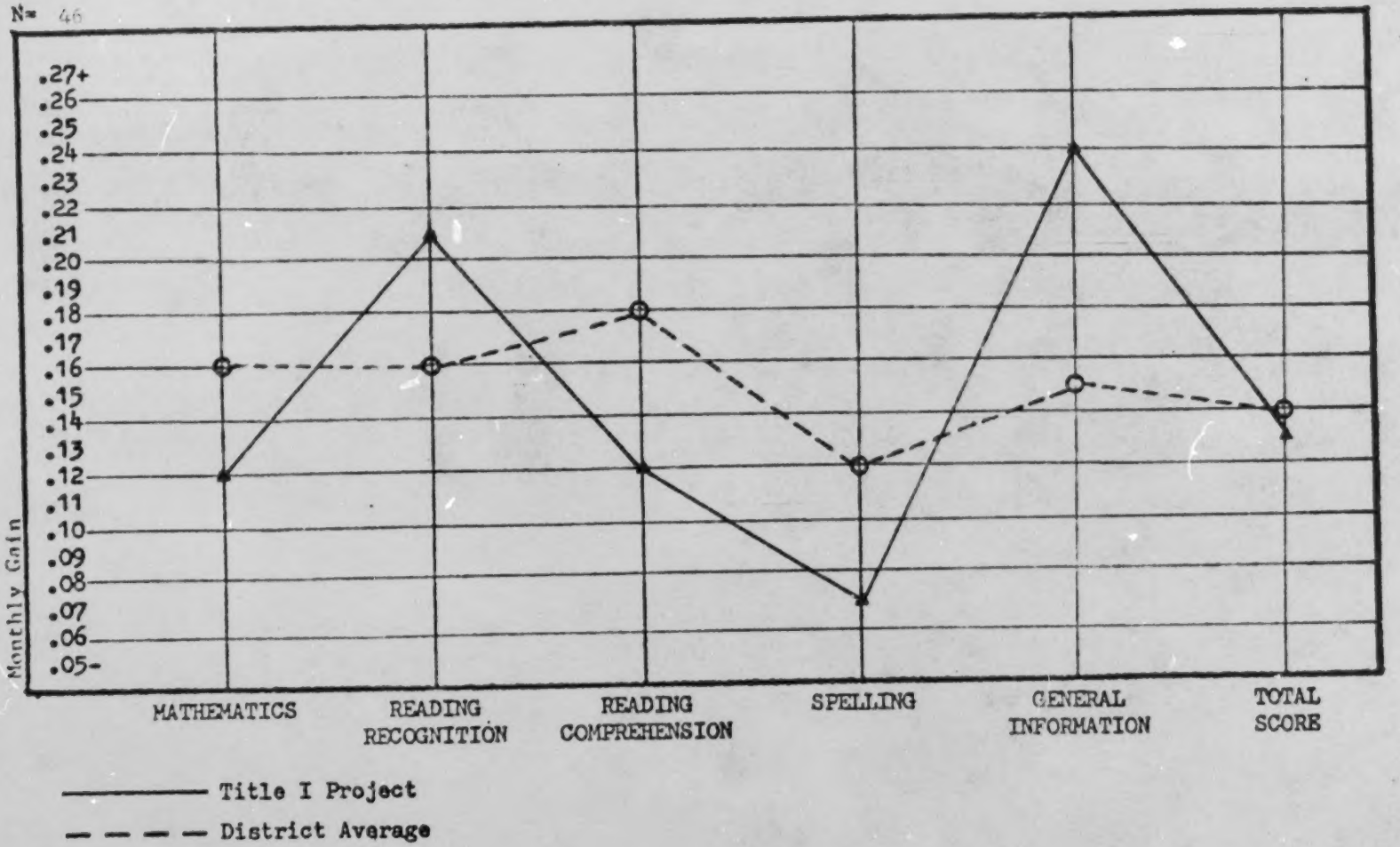
Due to the emphasis on MATHEMATICS, the tutors and tutees both achieved in this area, yet the tutors more than the tutees. This effect is not uncommon, for the tutors generally gain more - from such experiences.

Both tutors and tutees gained substantially in READING RECOGNITION and COMPREHENSION, SPELLING and GENERAL INFORMATION subtests to enable this project to achieve the Objective OT#1 criterion satisfactorily. With no change in ATTENDANCE, sixty-eight percent of the pupils increasing their LETTER GRADES in the tutored subject, and some estimated improvement in pupil BEHAVIOR, this Operation Tutor project can be appraised as successful. Similar to all eleven tutorial projects in Hawaii District, more time and closer supervision of the tutorial activity would have helped to increase these gains still further.

TABLE 17

PROJECT: Holualoa Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



HOLUALOA SCHOOL

OBJECTIVES: Refer to pages 66 and 67 for Reading Resource Rooms and Operation Tutor Projects. Refer to page 68 for Preschool Project.

Reading:

The reading resource room project at Holualoa School was directed by a project teacher, one full-time and two half-time EAs. The fifty Title I children were from the fourth through eighth grades, with approximately nine pupils from each level. The project teacher, who first began with Title I during the current year, was creative and exhibited confidence in her ability. The classroom desks and tables were conveniently arranged and the instructional materials, essentially SRA and Specific Skills, were centrally located. These and other teacher-made materials and lesser used commercially prepared reading materials allowed for individual diagnosis and prescription of specific instruction for each pupil. Reading enrichment games were also available for use by the pupils. A tape recorder with listening posts, Language Master, and phonograph were a fundamental aspect of daily classroom activity. Instructional strategies included one-to-one, small group and independent learning activities.

A large wall chart which graphically indicated individual pupil progress was utilized throughout much of the school year. While the purpose of the chart was to show individual achievement and encourage the pupils to earn better grades, it also recorded the points earned. These points could be spent on games and free time activity. Certificates were awarded for exceptional work and primary rewards were used to increase pupil motivation for lesser tasks. Simple reinforcing event menus for each grade level, showing the work required for completion of group contracts, were also posted appropriately on

the walls, as were objectives for desired classroom behaviors.

As reported, although about twenty-five percent of the school children's parents belonged to the Parent Teacher Organization, and newsletters were sent to the homes when needed, the Title I project teacher made more frequent contact with parents. Parent-teacher conferences were held, and personal and telephone communication with them was relatively good. The project teacher and non-Title I teachers often exchanged information concerning pupil progress. Such discussions and personal contact by the Title I teacher are commendable and serve an essential purpose. The high rate of achievement attained by the forty-six pupils who were in the program throughout the school year was supported by the individualized instruction, accurate prescription, appropriate motivation, and parental involvement.

The Holualoa reading resource room surpassed its primary objective of instructing the pupils to attain a learning rate greater than .1 per month. The gains made on both of these subtests (RECOGNITION and COMPREHENSION) satisfied this objective, with the READING RECOGNITION gain more than twice the .1 monthly criterion. The increased rate of learning achieved by the pupils during the year was relatively high for the District. Also above average was the percent of pupils who achieved gains above their baseline rates. While pupil ATTENDANCE decreased somewhat, their BEHAVIORS were estimated to have improved at a rate equal to that of all pupils throughout the District. This reading resource room at Holualoa School was one of the more successful of Hawaii District's Title I programs. It was the only project that attempted and succeeded in following all recommendations from the 1972-1973 EVALUATION OF PROJECT COMPONENTS. From a less than acceptable performance in the previous year, this project fully met all expectancies of an efficiently and effectively operated reading program. The credit for such achievement obviously rests with the dedicated efforts of the project teacher and her EAs.

Operation Tutor: Reading

The Operation Tutor project at Holualoa School consisted of approximately thirteen pupils, with all but two of them engaged in reading activities. Each dyad met during the morning hours for one and three-quarters hours weekly, and most of them within the tutor supervisor's classroom and under her direct supervision. The project was well organized, coordinated, and directed.

The tutors of this project almost doubled the objective .1 criterion for READING RECOGNITION, but did not achieve this gain (nor meet the objective) for READING COMPREHENSION. The tutees, however, attained academic gains in excess of the objective criterion on both subtests, as well as surpass the District averages on all but the MATHEMATICS subtest.

Preschool:

The preschool project at Holualoa School was organized and coordinated by the project teacher and one full-time EA. The twenty preschoolers utilized a large (double portable) and carpeted room, and sufficent academic and recreational materials. The daily agenda included music, physical exercises, academic tasks, art, play time, nap time, lunch, and classroom chores, all combined with pleasant social interaction.

One hundred percent of the preschool pupils at Holualoa School improved their TEL scores during the year. This achievement surpasses the objective criterion (PS #2) and as indicated on Table 12, these children's expressive language skills improved by an average of 38.4%.

The Holualoa preschool results from the Preschool Checklist for Basic Skills indicate a considerable increase in the pupils' ability to effectively function in the early elementary grades. The greatest increases occurred in the areas of identifying shapes, prepositions which indicate direction or location, and numbers. The highest post-test achievement, however, involved

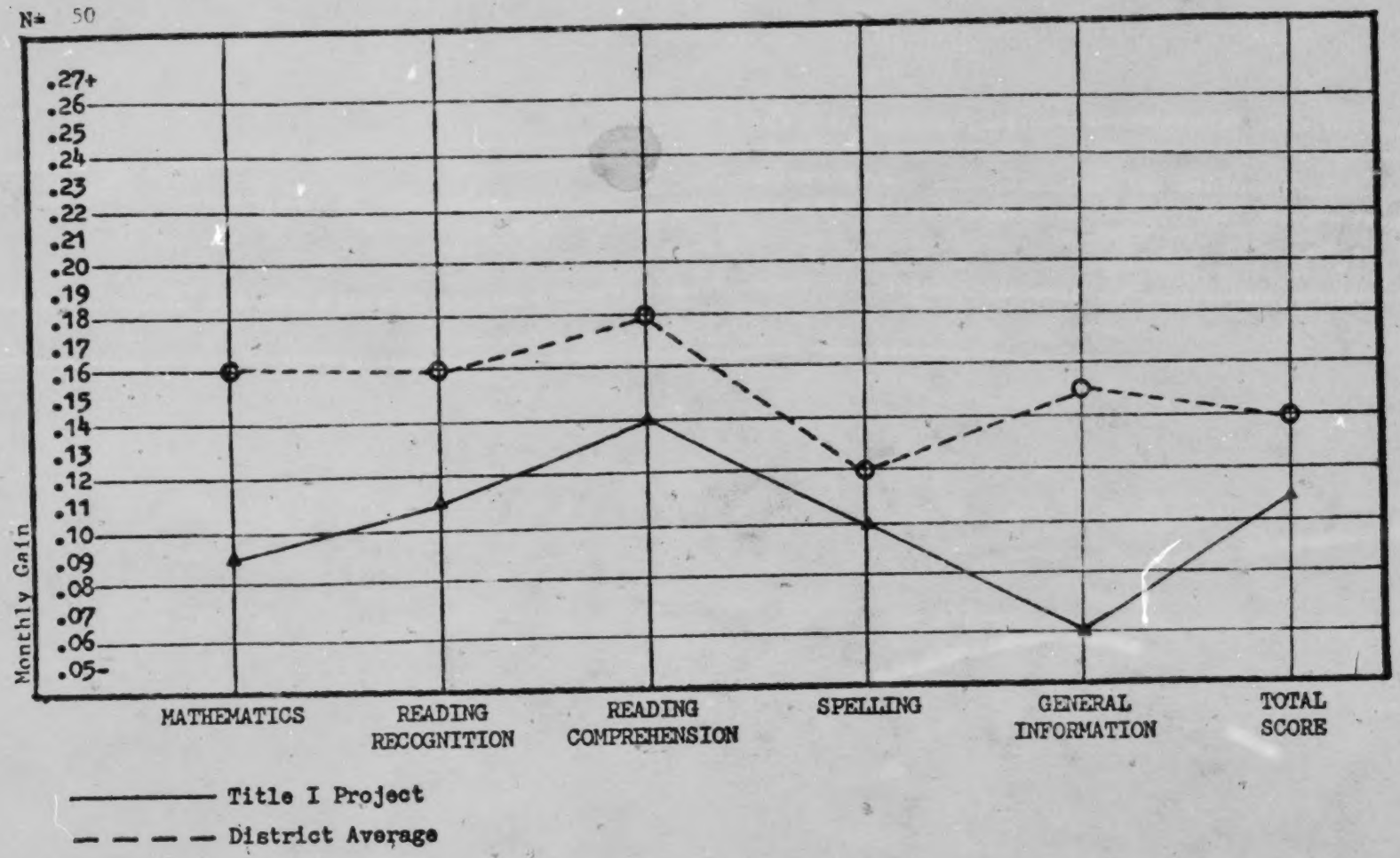
social skills (an entirely subjective measurement), shapes and color discrimination and identification, and locomotive skills. The lowest overall success was within the more traditional academic areas of numbers and letters, both named and identified.

The Holualoa preschool project, however, appeared to be very successful with its children. What they learned and gained in ability should be transferred and magnified many times in future years and experiences. Whether the success gained at the Holualoa preschool during the 1973-1974 year was significantly better than previous years (or more effective than other preschool programs) cannot be determined. This was the first year the Test of Expressive Language and Preschool Checklist were used as testing instruments by the Holualoa project. Their further use in coming years and compared with other children of equal age but without preschool experiences should provide a basis for more concrete and quantitative assessment.

TABLE 18

PROJECT: Honaunau Operation Up-Lift

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



HONAUNAU SCHOOL

Objectives for Operation Up-Lift, 1973-1974
Revised: September 6, 1973

OBJECTIVE:

HS#1 : To effectively instruct the project pupils in reading skills so they achieve, on an average a learning rate greater than .1 average monthly gain in grade equivalent scores for reading recognition and reading comprehension between the pre- and post-tests.

HS#2 : Attendance at school of the participating pupils in this project will, on an average, increase by five percent (5%) from the months of October through December, 1973, to the months of February through April, 1974.
Note: Refer to Objective RRR #2.

HS#3 : The personal and interpersonal interactions and behaviors of the participating pupils in this project will, on an average, increase by 36% between the end of September, 1973, and the end of April, 1974.

OBJECTIVES: For Preschool Project objectives, refer to page 68 .

Reading:

Operation Up-Lift at Honaunau School involved two distinct features in remedial and support services to educationally deprived children of that school. A remedial resource room was established and operated for the first time this year with a project teacher and one half-time EA. This project component served pupils from grades four through eight, with each group of children reporting for instruction during specified periods of the morning. Nineteen other children from kindergarten through the third grade were serviced by two half-time EAs who provided supportive educational services directly in the classroom of the K-1 and 2-3 grade level clusters, under the supervision of the regularly assigned classroom teachers.

The reading resource room was well arranged and organized, with pupil desks near the walls and materials, games, and teaching devices centrally

and conveniently located in the middle of the room. The Specific Skills, Ginn Basal Readers, SRA and other conventional reading materials were used and of considerable value for individualizing the academic tasks of pupils in kindergarten through eighth grade. Further instruction was provided through the use of various media devices, including a Language Master, tape recorder, and phonograph. In addition to these standard materials and teaching machines, the project teacher developed several useful materials for pupil use. Individual pupil folders were also well organized, efficient, and up-to-date.

Although no specifically developed use of systematic behavioral management techniques was implemented by this Title I project, a modified contract form was used. The pupils wrote their own lesson plans and were expected tocomplete at least three of the four tasks. Although some social reinforcement was evident, such as praise from the teacher, a more well defined approach to behavioral management of the classroom would have helped to increase the motivation and achievement of these children.

The project teacher's organization of the classroom, in spite of the apparent lack of a motivational system, was adequate. That the teacher, herself, new to Title I, could successfully develop a new remedial program with 31 pupils, from five grade levels, is remarkable. The classroom organization, individualization procedures, and use of available materials and resources were adequate for this initial effort despite the inappropriteness of some materials that were geared for lower levels. As several years of practice and experimentation are usually required to fully develop an effective behavioral approach to classroom management, the lack of such techniques within this first year program was reasonably justified. The two EAs who serviced the primary level classrooms continued their general support services,

as done in previous years, and provided individualized attention and help to small groups of pupils during the regular language arts instruction periods of the respective classes. No specific or unique instructional procedures and materials were evident.

While the PTA membership at Honaunau School was relatively high, with a monthly newsletter sent to the parents, little personal involvement was demonstrated. The reading resource project teacher made some contact with Title I parents, but few appeared to respond. Most teacher-parent contacts occurred during the beginning of the year, and was primarily through the homework pupils took home. The teacher did, however, have frequent and personal contact with the other classroom teachers of Honaunau School, which helped to provide an understanding of pupil achievement outside the Title I project.

The Operation Up-Lift project exceeded the .1 monthly gain in READING and thereby met the first objective. That the project did achieve its greatest average monthly gain in READING COMPREHENSION and the second greatest in READING RECOGNITION firmly suggests the direct influence that this program had upon its pupils' achievement.

The ATTENDANCE rate decreased considerably (a characteristic common to all new reading resource rooms), while the pupils' BEHAVIOR was estimated to improve to a level well above the District average. This project's further development and increased effectiveness for Title I pupils in coming years can be expected.

Operation Tutor: Reading

The Operation Tutor Project at Honaunau School involved eight children from the first and fifth grades. The tutors and tutees met together for approximately three hours each week during the afternoons to help one another achieve better reading skills. The tutees were from the tutor supervisor's

class while the tutors came from various classrooms throughout the school.

The tutees achieved greater academic successes from the program than did the tutors, although both surpassed the .1 objective criterion for reading. The tutors failed to achieve any increase over their baseline rate. Since half of these pupils were first graders, who were new to the school experience and whose behavior was more readily adaptable to it, the behavioral improvement increase was greatest in the District.

Learning within the tutorial relationship is fundamentally an exchange between only two pupils, and the achievement gained is a result of this experience. While the Honaunau project was relatively small in the number of pupils it served, the success of these eight pupils is generally comparable to that of other projects. Achievement of tutorial projects throughout the District did not depend upon, and were generally not influenced by, the size of the projects, as were reading resource rooms.

The relatively low achievement scores by tutors of this project may be attributable to the disparity in ability levels among the tutors (higher achieving fifth graders) and tutees (underachieving first graders). The assigned tutorial tasks, although appropriate for the tutees, may have been too basic for any benefit to the tutors who were functioning at a much higher instructional level.

Preschool:

The Honaunau preschool project served twenty-two children and was supported by a project teacher and one full-time EA. Like the other preschool project in the Hawaii District, these children benefited from a large (double-portable) and comfortable room with adequate materials, recreational and academic supplies, and different kinds of learning experiences provided. The typical day consisted of physical exercises, academic tasks, musical appreciation,

art and handicrafts, nap and lunch times, and social interaction with each other.

As it is indicated on Table 12, average improvement in expressive language skills was 26.2%. This was accomplished by all twenty-two preschoolers who made highly significant improvements in their TEL scores between pre- and post-testing. The objective criterion (PS#2) was surpassed handily by this project.

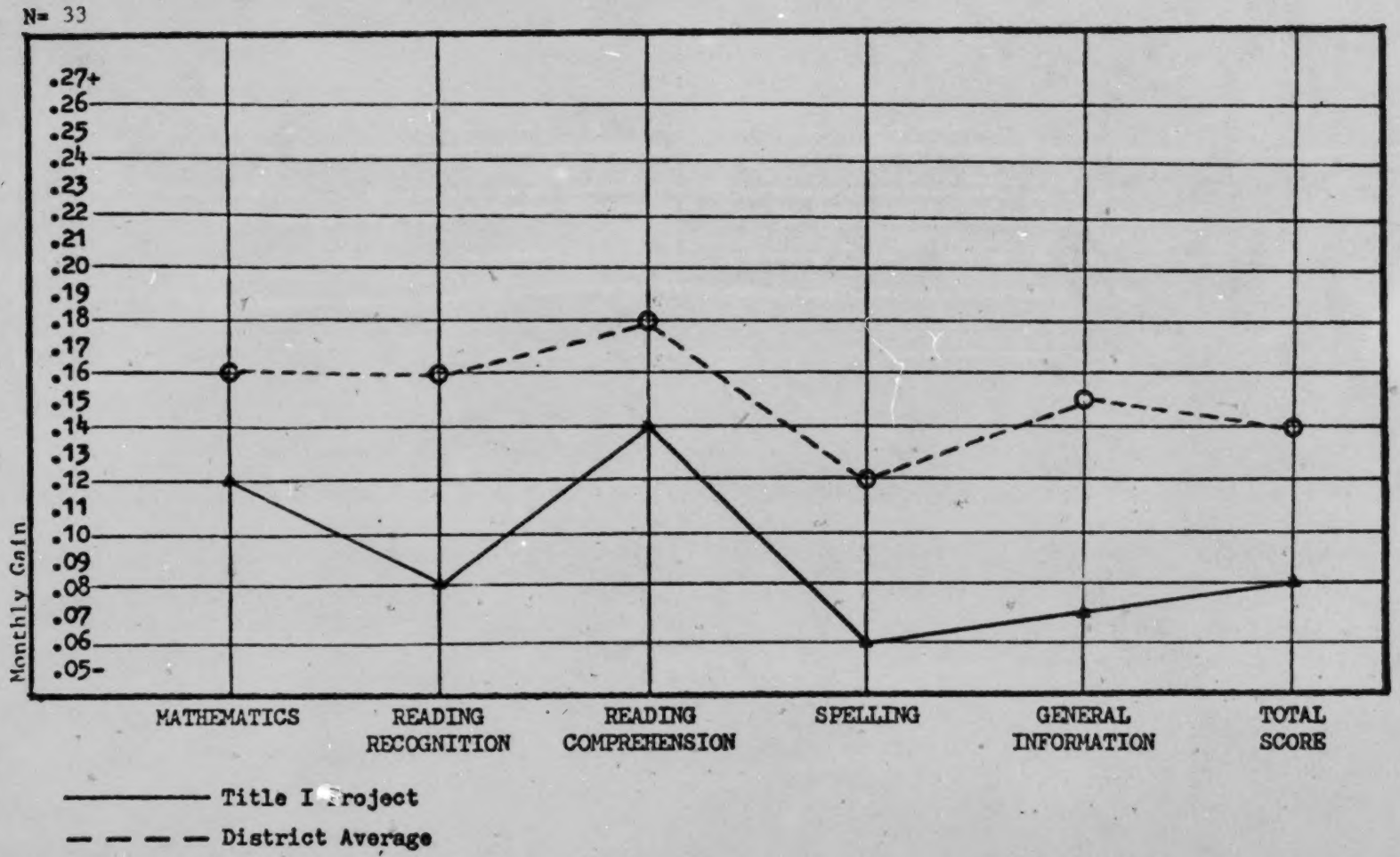
Pre- and post-administration of the Preschool Checklist for Basic Skills resulted in data which indicate that colors, shapes, locomotive skills, and the ability to follow directions were the most readily learned. More traditional academic skills, such as naming and identifying numbers and letters of the alphabet, were achieved to lesser extent. This characteristic was common to both preschools within the District, and emphasizes the need for additional work in these areas if it is determined that more academic preparation is to be emphasized.

The effort behind the Honaunau preschool project appeared successful and beneficial to the youngsters. The preparation provided by this Title I project should in future years reduce the number of underachieving children who require the need of several years of remediation. Such preparation by preschool instruction is essential, and this project provided its twenty-two children with the initial and necessary success required of children entering school.

TABLE 19

PROJECT: Hookena Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



HOOKENA SCHOOL

OBJECTIVES: For Reading Resource Room and Operation Tutor projects, refer to pages 66 and 67 .

Objectives for Alae Operation Live-In, 1973-1974
Revised: September 6, 1973

OBJECTIVE:

AL#1: To effectively instruct the project pupils in reading and arithmetic skills so they achieve, on an average, a learning rate greater than .1 average monthly gain in grade equivalent scores for reading recognition, reading comprehension and arithmetic between the pre- and post-tests.

AL#2: Attendance at school of the participating pupils in this project will, on an average, increase by five percent (5%) from the months of October through December, 1973, to the months of February through April, 1974.
Note: Refer to Objective RRR#2.

AL#3: The students participating in the Operation Live-In project will, on an average, demonstrate significant improvement in their a) completion of assigned tasks, b) participation in recreational activities, c) appropriate social behavior, d) habits of personal health and cleanliness, and e) performance of good study habits.

Reading:

The reading resource room at Hookena School was organized by a project teacher and supported by three half-time EAs. Initially, fifty pupils were screened from the kindergarten through eighth grade levels. Thirty-nine of these children were later selected to remain in the program throughout the year, with thirty-three of them being both pre- and post-tested. Since this was a new remedial program at Hookena School its development and implementation required extra time and effort by the staff.

The classroom facility of this Title I project was small and overcrowded with many tables, desks, shelves and cabinets. While their arrangement was (under the circumstances) satisfactory, an oversupply of furniture and materials

in the room presented obstacles and inconvenience in handling materials. A vast supply and array of instructional materials were necessary in view of the wide range of ability levels among the target pupils.

A systematic behavioral approach, involving the reinforcement of appropriate work, was established through which pupils could earn points and stars for completing academic tasks. These could then be traded for small, tangible rewards or free time activity in a high strength area established and maintained by the school. The entire system of reinforcement, however, did not appear to be well developed, clearly understood, or very influential for improving pupil behavior. A more consistent and specific contingency contracting procedure would have probably increased the pupils' motivation toward work and achievement.

The project teacher's contact with the parents of Title I children was relatively good, as was their participation with school related activities. Personal contact and school work sent home were the most frequent means of communicating with the parents. The teacher also appeared to have close contact with other classroom teachers of the Title I pupils. This better than average communication between parents and teachers was largely an outcome of the small size of Hookena School (nine teachers), and the isolation of the Hookena community.

A number of probable factors including, a) the classroom was small and inconveniently crowded; b) sufficient individualization of materials and better teaching devices were not available nor possible; and c) systematic behavioral management techniques were not effectively utilized; the overall may have contributed to low achievement of these pupils.

The testing error may have occurred during either pre- or post-testing, as school personnel had suggested, is not altogether unlikely. An additional explanation of why the Hookena gains were not higher is that the average

number of months between pre- and post-testing (ten) was greater than any other reading resource room project. Average monthly gains where the pre-post interval was shorter (i.e., seven months) tended to show higher gains. (Hookena's project was the only one that used test results from 1972-1973 as pre-test data for the 1973-1974 school year.) This condition should stabilize during 1974-1975 when more projects in Hawaii District will use similar procedures for pre- and post-testing.

The Hookena pupils did, however, satisfy the .1 achievement objective criterion in READING COMPREHENSION. Yet only 67% of the pupils were above their baseline rate, i.e., one/third of the pupils did not benefit academically from the project. The lack of success that was achieved by them, and the need for greater motivation for the pupils to work, may have been the primary causes for ATTENDANCE to fall sharply by twenty percent at the end of the year.

The reading resource room at Hookena School was somewhat successful in helping underachieving pupils to narrow the knowledge gap between themselves and other pupils. The project teacher was dedicated, concerned for the pupil's individual welfare, and willing to challenge the limitations which accompany a new remedial project. With experience and program development, this project will in the future, have much to offer the academically disadvantaged children of Hookena.

Operation Tutor: Reading

The Operation Tutor project at Hookena School was directed by a tutor supervisor from the school's faculty and consisted of seven tutors and nine tutees, all of whom met in the classroom of the Title I reading teacher. While the tutors, from five different grade levels, came from other classes throughout the school, the tutees were all Title I pupils of the reading resource room. The tutorial dyads met at various times of the day for approximately

two hours each per week. All tutoring involved reading activity and all pupils were selected on the basis of their need for reading improvement.

Similar to the reading resource room program, the relatively low scores may be attributed to testing error and/or the ten month interval between pre- and post-testing. While the tutors' monthly gains did not meet the criterion objective, and no PIAT subtest gain was above the District average, the tutees did achieve .13 average monthly gain on READING COMPREHENSION. This advancement attained in reading, however, may have been directly related to the .14 monthly gain in the reading comprehension which the reading resource room pupils achieved. (All tutees were pupils of that project as well.)

The differences in the gains between tutors and tutees can be viewed from their increased rates of learning, with the tutors achieving less than before it began and the tutees increasing their rate slightly. ATTENDANCE of the tutors and tutees sharply decreased at the year's end, their LETTER GRADES in the tutored subject increased by more than fifty percent, and their BEHAVIOR was judged to have improved during the year. With greater involvement and cooperation among all Hookena teachers - through the application of tutorial strategies - the pupils of this school can gain even greater achievements in future efforts.

Alae Live-In:

The Alae Operation Live-In project near Hookena School served sixteen pupils whose families reside in Milolii. Supervising the ten boys and six girls (from grades three, four, five, seven, and eight) were a part-time supervisor and five part-time para-professional assistants. The boarding school was organized as a Title I project in February of 1968, for the purpose of providing Milolii children additional academic help, recreation, better nutrition, and increased knowledge of the world around them. The project

also permitted the children to overcome the necessity of traveling the great distance between Hookena and Milolii twice each day. A particular advantage that Alae offered to its residents was that of providing them with a greater understanding and appreciation of the Hawaiian culture. The staff and residents of Alae have always exhibited pride in their musical ability and Hawaiian heritage.

With one less assistant than during the previous school year, and three different part-time project supervisors during the year, Alae was able to offer very limited academic help to its residents. No special instructional materials or teaching devices were used, and no systematic behavioral management approach was implemented. Activity at the boarding school was primarily a social and cultural experience, with few books available and homework seldom performed at the residence. Life at Alae was neither academically oriented nor directed toward that goal.

Test results indicate relatively low achievement rates for the residents. Only in MATHEMATICS and READING COMPREHENSION did they meet the objective of a learning rate greater than .1 per month. Attainment of the objective for READING RECOGNITION, SPELLING, and GENERAL INFORMATION fell considerably below its goal. The academic achievement of these pupils did, however, increase slightly (.02 grade levels per month) during the school year.

The second objective cannot be measured since the program supervisor(s) did not submit data regarding the pupils' attendance at Hookena School. Neither can the last objective be accurately assessed, for information recorded by the staff regarding the ALAE BEHAVIORAL SCALE was not sufficiently complete. Table 20-A does reveal that the number of estimates submitted during pre- and post-observations was significantly unequal and unreliable. While the statistics are somewhat comparable to the 1972-1973 results from the same scale, the information is too incomplete for objective assessment.

Table 20-B shows the relationship between the gains made on the PIAT test by Alae residents and those pupils of Hookena School continuing to live at home in Milolii. All sixteen pupils residing at Alae received a TOTAL SCORE gain of .8 for the year. While fifteen pupils living in Milolii (who were tested by either of the two Title I projects at Hookena School) attained 1.0 gain for the year. Only in the MATHEMATICS subtest did the Alae residents achieve more than the Milolii children. The total score difference suggests that the pupils living at home in Milolii, gained two-tenths of a year more than the pupils residing at Alae. Neither group, however, achieved gains large enough for remediation to occur, and the Alae residents fell another two-tenths of a year behind.

The Alae Operation Live-In project was successful in providing a convenient place for the children to live, eat, participate in recreational activities, socialize, or learn more about the Hawaiian culture and the world around them. It apparently provided a valuable experience by which they grew toward maturity, in responsibility, and in self-awareness. The project, however, was not academically successful, and did not satisfy any of its proposed objectives. Information indicates, in fact, that pupils not living at Alae - but living in Milolii - achieved more academic success during the year. Future Operation Live-In projects should be revised to more realistically achieve its academic goals by strengthening the children's motivation to perform school related tasks (homework) under more stringent learning conditions. Better coordination is also needed between the Hookena School teachers and the tutorial supervisors of the Live-In project if academic activities and tasks at Alae are to be relevant and meaningful.

TABLE 20-A

OPERATION LIVE-IN

Pre-Post Results from the Alae Behavioral Scale

	PRE	POST
Number of Pupils Served	17	16
Number of Observations Submitted	78	47
Average Number of Observations per Pupil	4.6	2.9
Average Results by Observed Items		
1) Completion of Assigned Tasks	5.7	7.1
2) Participation in Recreational Activities	6.0	7.6
3) Appropriate Social Behavior	5.5	7.2
4) Habits of Personal Health and Cleanliness	5.2	7.5
5) Desirable Study Habits	4.9	6.3
Average Score	5.5	7.1
Maximum Score Possible	10.0	10.0

TABLE 20-B

REMEDIAL SUPPORT PROJECT

Pre-Post PIAT Results from Milolii & Alae Pupils

	ALAE			MILOLII		
SUB-TEST	PRE	POST	GAIN	PRE	POST	GAIN
Mathematics	2.9	4.3	1.4	1.7	3.0	1.3
Reading Recognition	2.6	3.4	.8	2.1	2.9	.8
Reading Comprehension	2.4	3.5	1.1	.8	2.4	1.6
Spelling	2.8	3.1	.3	1.8	2.6	.8
General Information	2.5	3.2	.7	1.1	1.8	.7
Total Test	2.6	3.4	.8	1.3	2.3	1.0

KAPIOLANI ELEMENTARY SCHOOL

Objectives for Extra Effort Project, 1973-1974
Revised: September 6, 1973

OBJECTIVES:

EE #1: To effectively instruct the project pupils in reading skills so they achieve, on an average, a learning rate greater than .1 average monthly gain in grade equivalent scores for reading recognition and reading comprehension between the pre- and post-tests.

EE #2: Attendance at school of participating pupils in this project will, on an average, increase by five percent (5%) from the months of October through December, 1973, to the months of February through April, 1974.

Note: Refer to Objective RRR #2.

EE #3: The personal and interpersonal interactions and behaviors of the participating pupils in this project will, on an average, increase by 36% between the end of September, 1973, and the end of April, 1974.

EE #4: The passive and disruptive behaviors of the participating pupils in this project will, on an average, decrease by twenty-five percent (25%) from October, 1973, to March, 1974.

The remedial support service project at Kapiolani School involved one full-time counselor, three full-time EAs and four part-time professional tutors. One hundred and eighty-eight pupils were selected from throughout all grade levels of the school and were offered extra remedial help within their respective classrooms by the eight Title I personnel. The Kapiolani Extra Effort project was not centrally located within a resource room, but served the pupils in the regular classrooms. Each classroom to which the EAs and tutors (usually unemployed teachers) were assigned was taught by one or more of the school's non-Title I regular teachers. A small section of each room was often set aside for the Title I personnel and pupils to interact.

The instructional materials most frequently used by the personnel of this project were the Peabody kits, Ginn Basal Readers, and SRA reading tests. All materials and devices located in the classrooms were, in most cases, under the direct supervision of the classroom teachers and used in connection with the regular instructional program of the school. Broad instructional assignments were made by the teachers, with the testing and recording of data performed by the seven Title I assistants. There was little evidence that individual diagnosis and instructional prescriptions were done by the teachers. The EAs and tutors reported that day to day instruction of the Title I pupils was left to their discretion and abilities. The primary responsibilities of the counselor were to counsel pupils, initiate parental contact, supervise the program, and coordinate the efforts of other staff personnel.

The reinforcement of behavior that occurred was verbal praise by the assistants or tutors, or privileges given to the children on special occasions. While a well developed and specific behavioral approach would have promoted greater pupil motivation toward achieving academic tasks, the application of such an operation would have been difficult to effectively arrange. With one hundred and eighty-eight pupils, eight Title I personnel, many classrooms and non-Title I teachers, the implementation of a consistent, quantitative, and systematic school-wide approach for them all would have required considerable planning, training, coordination, and expertise.

The project counselor made frequent contact with the classroom teachers regarding the needs and academic achievement of pupils. Two or three times each week the counselor would individually meet with each classroom teacher involved in the supervision of the assistant's work. The school's teachers were generally aware of these pupils' underachievement and the necessary remediation that was required for their help. They were also, with the assistants

in many of their classrooms, well aware of the Title I program and its overall goals. Parental involvement with the program, however, was poor and infrequent. Where a school (and program) such as Kapiolani are so large that frequent personal contact and interaction become difficult to arrange, the lack of parental support is not unusual. Like the Title I project at Kapiolani School, larger schools tend to have a lower percent of parental involvement than do smaller schools, or projects. While the teachers understood and accepted the program, its support and involvement among the parents of Title I children appeared slight for the number concerned.

The first objective of the Extra Effort project at Kapiolani School was to instruct the pupils in reading so they would achieve, on an average, a learning rate greater than .1 average monthly gain in grade equivalent scores for reading recognition and reading comprehension. By attaining .07 per month in READING RECOGNTION, and .10 in READING COMPREHENSION, this objective was not satisfied. There were no gains, on any subtest, which would have satisfied this objective, and all achievement gains were significantly less than the District average.

The available test data specified in the project's first objective is insufficient for a fully accurate assessment. Pre- and post-testing of 188 pupils presented a considerable problem in logistics (time and personnel requirements) to the project staff. Therefore, a fifty percent random sample of these pupils was to be initially tested. Subsequently pre- and post-test data from a random sample of fifty-three pupils (twenty-eight percent) was submitted.

Directly related to the monthly gain of these pupils is the achievement they made before and during their participation within the project. The Title I children in this project achieved the least gain (.01 per month) of any project in the District. The percent of pupils achieving a learning rate above their baseline, during the project, and the percent who attained a rate

greater than .1 average monthly gain, were also very low. Fifty-three percent of these pupils achieved above their baseline rates.

The pupils of the Kapiolani project, similar to the reading resource room projects, did not meet the second objective of increased pupil ATTENDANCE. Rather, attendance by this school's Title I pupils dropped by three percent during the year. Improvement of pupil BEHAVIOR, as estimated by most teachers throughout the school, was equal to the District average gain.

Objective EE #4 of the Extra Effort project attempted to reduce "disruptive" behavior of identified pupils with classroom behavior problems. Thirty-nine such children were identified and observed during typical classroom sessions with their teachers. The initial observation was conducted during October and November of the Fall semester and post-observations completed in April and May of the Spring term. All observations were conducted with the L. A. Hammerlynck Coding Scale by trained neutral observers from the Hilo College.

Table 21-B indicates that nearly seventy-four percent of the pupils observed made significant gains for "on-task" behavior with individuals averaging gains of 24% each. Also significant are the average 9.4% decreases in "passive" behaviors by twenty-three percent of the children. There were no significant decreases in disruptive behaviors of these children and three percent made no changes at all during the year.

The data on Table 21-A shows that attention for "on-task" behaviors by teachers and peers (combined increase of 7.5%) probably influenced the improvements in this category. This fact is confounded, however, by the increase (combined increase of 8.4%) of teacher and peer attention for "passive" classroom behaviors. While the peers significantly reduced (-14.3%) their attention for disruptive behaviors, the teachers increased their attention (+8.9%)

TABLE 21-A

KAPIOLANI EXTRA EFFORT PROJECT

Percentage Distribution of the Source of Attention
Following Observed Behaviors

BEHAVIOR	TEACHERS			PEERS			NO ONE		
	Pre	Post	Increase	Pre	Post	Increase	Pre	Post	Increase
On Task	10.3	14.4	4.1	9.3	12.7	3.4	80.4	72.9	-1.5
Passive	2.0	4.1	2.1	11.1	17.4	6.3	86.9	78.6	-8.3
Disruptive	4.9	13.8	8.9	72.4	58.1	-14.3	22.7	28.1	5.4

TABLE 21-B

Percent of Observed Behaviors

BEHAVIOR	PRE	POST
On Task	59.8	73.9
Passive	30.2	16.5
Disruptive	10.0	9.7

resulting in nullification of any positive results in the decrease of disruptive behaviors, which might have occurred.

These data emphasize the need for classroom personnel to be fully aware of the postive value and effect their attention (social reinforcement) have upon children - whether or not the attention is viewed as positive or negative by the teacher. Sometimes, even "scoldings" can be rewarding to a child who seeks adult attention.

Of the thirty-nine identified "disruptive" children, 22 were also included in the sample pre- and post-tested with the PIAT. These results indicate that 36% of the children gained more than .1 average monthly grade equivalent gains in their PIAT TOTAL SCORE. The average gain for all 22 tested pupils was +.8 average monthly gain. However, an analysis of the individual academic gains and behavioral improvement scores indicate a correlation of -.01 which means that there was no relationship whatsoever between individual gains in "on-task" behavior and gains on PIAT.

The lack of academic success by the pupils of this project does not imply that the Title I staff of Kapiolani School were less dedicated, able, or interested in the welfare of the pupils than were any other Title I teachers. Yet this Extra Effort project was limited by basically three different and unique factors. First, and most significant, it attempted to accomplish too much for too many children, with a staff that was proportionally too small and apparently inadequately prepared. One full-time counselor, three full-time assistants, and four part-time tutors were unable to reach each child with sufficient diagnostic and prescriptive services and individualized instruction. With an equivalent of five full-time assistants (the project counselor not included), each Title I staff person (para-professional - 3, part-time professional - 4) had to instruct thirty-eight pupils every day. That the objectives of this

project were not accomplished does not imply that the staff's efforts were less, but that the task was much too great.

Secondly, the non-professional or part-time tutors should not have been expected to provide for such remedial support services without the formal training and preparation required to accomplish a task of this magnitude. While their work was commendable, the seven assistants should not have been responsible for the instruction of one hundred eighty-eight pupils in a manner sufficient to equal the academic gains achieved by much smaller groups of pupils within a closely supervised reading resource room.

And third, the supportive rather than intense remedial work limited this project's success. The assistants' function was basically supportive, i.e., to help the children with their regular classroom assignments. It did not appear that emphasis was given to fundamental remedial work. Thus, as the test scores indicate, the pupils could at best only match the gains being made by their non-Title I peers. Remediation (i.e., closing the gap of knowledge and ability between Title I and non-Title I pupils) could not, by supporting the pupils' daily work, be attained.

KAU HIGH & PAHALA ELEMENTARY SCHOOLS

OBJECTIVES: Refer to page 67.

Operation Tutor:

The Operation Tutor project at Kau High and Pahala Elementary Schools was a combination of both schools' programs into one. The project was organized and implemented only at the elementary school level with the fifteen tutors (from the fourth grade) and seventeen tutees (from the second and third grades) into tutorial dyads meeting at various times throughout the school day. Pupils from the high school were never involved in this project. While the tutors came from other classrooms at the elementary school level, the tutees were from the tutor supervisor's classroom and the activity was conducted within her room. All tutor dyads were involved in reading improvement and met for approximately two hours each week.

Both tutors and tutees generally satisfied the primary objective of meeting the required academic gains. Only the tutees, in the READING RECOGNITION subtest of the PIAT, achieved a gain (.09) which was less than that needed for completely satisfying Objective OT#1. However, the tutees' gains on the READING COMPREHENSION subtest (.25 per month), combined with the MATHEMATICS subtest, readily surpassed this objective. The monthly gains of both tutors and tutees on all subtests were reasonably consistent. Like most tutor projects, the gains were greatest in the areas of reading and math, and least in spelling and general information.

The tutees of this project achieved more than the tutors, an indication that the tutorial activities were designed more for the benefit of the tutees rather than both tutees and tutors.

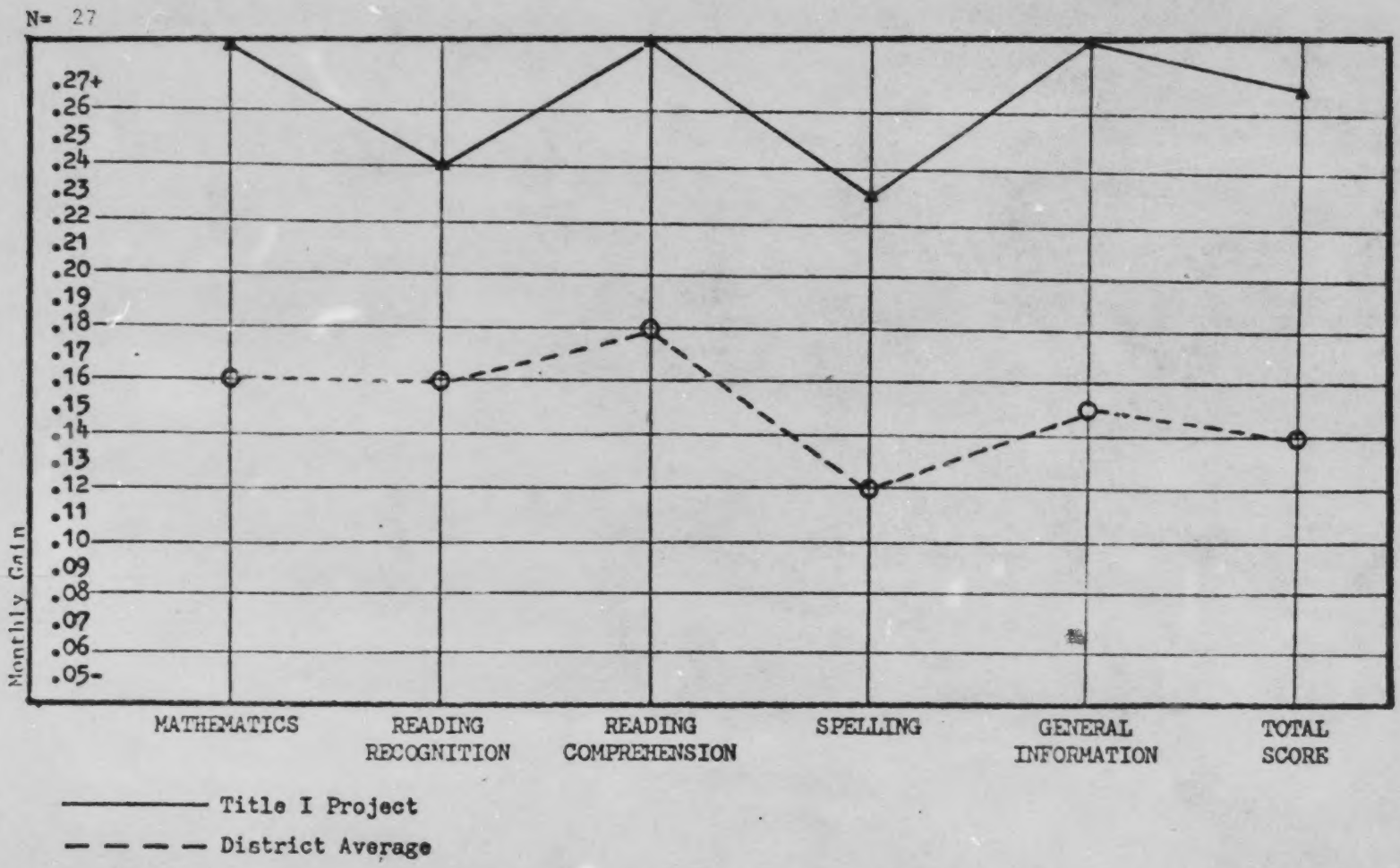
The percent of pupils performing above their baseline rates and the .1 monthly gain objective criterion, as well as the rate of ATTENDANCE, were very close to the District Title I averages. The estimated improvement in

BEHAVIOR was somewhat better than this average. The Operation Tutor project at Kau High and Pahala Elementary Schools was successful in meeting its most important objective. It is unfortunate that the project was not implemented at the high school level. Experience from this tutorial approach to learning should be utilized and incorporated into the Title I reading project at this school during the 1974-75 academic year.

TABLE 22

PROJECT: Kealakehe Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



KEALAKEHE SCHOOL

OBJECTIVES: Refer to page 66 and 67.

Reading:

The Kealakehe School's reading resource room involved the project teacher, a full-time EA, and thirty-five pupils from grades two through eight. The classroom was small, adjacent to the library, and originally designed and used as a material resource and production area for the school. It served as a storage area for library materials and equipment. A second but even smaller room next door was cleared of its materials later in the year and the space utilized by the project. Although the facility was cramped, the desks, chairs, and materials were adequately arranged and conveniently located. Dividers between the pupils' desks reduced visual distraction, a carrel was constructed in the back of the room for use with automated teaching devices and instructional materials were located on shelves and counter-tops along the walls.

While a sufficient number of academically oriented enrichment games were available to the children, a larger variety of leisure reading books, appropriately designated at the school library, would have been preferable. The Specific Skills Series and SRA Reading Laboratory Kits were the most frequently used instructional materials among a variety available to the project. A tape recorder and phonograph, both with listening posts, and a Language Master were also available in the classroom. The use of automated teaching devices in the smaller room, by one or two pupils at a time, enabled other children to work undisturbed at their desks in the main room.

While the teacher occasionally praised the pupils for their good work, they were expected to do the assignments asked of them without any apparent additional reinforcement or motivation. Contingency contracting with positively reinforcing consequences may be helpful if incorporated into the pupils' daily

activities during the next academic year.

According to an informal survey among parents, teachers, and the principal, involvement and active support by the parents of Title I children was relatively poor at Kealakehe School. It was reported that parents tended to be unconcerned and "too busy" to show significant interest in the program. The large and overcrowded school, continually fluctuating population, and past feelings of frustration may have combined to inhibit parental contact with the project. Attempts by the project teacher to contact the parents of her pupils rarely proved to be meaningful, and teacher-parent conferences were few.

The academic achievement of the pupils in this reading resource room was outstandingly good, according to the reported data. However, the reliability of this information is subject to considerable speculation. While the project improved, such extraordinary success as represented by the PIAT data was not anticipated. The data has been accepted as it is, but with extreme caution in accepting the gains as either valid or reliable.

Every PIAT subtest score from Kealakehe's reading project was well above the District Title I average. In most cases the subtest gains from this project were two or three times as great as those from similar programs, and in a few cases they were six or seven times larger. These pupils made gains, as tested and recorded, of almost three years work during the seven months between pre- and post-testing.

Due to the high test results, the percent of pupils achieving gains above their baseline rates (and above .1 average monthly gain) was extremely high. Yet, pupil ATTENDANCE fell consistently during the year, the additional NUMBER OF BOOKS read by year's end was insignificant, and pupil BEHAVIOR was estimated to improve at the lowest rate in the District.

The Kealakehe reading resource room was obviously a successful Title I project. The children gained in knowledge and ability, and probably made significant academic achievements. With further experience and program refinement the project will be able to validate its achievement more reliably and provide many more pupils the remedial instruction which they require for further academic success.

Operation Tutor:

The Operation Tutor project at Kealakehe School involved fifteen pupils, although only seven tutors and four tutees were both pre- and post-tested. The tutees were also participants of the reading resource room project, and the tutors came to that classroom from non-Title I classes throughout the school. The Title I reading project and the Operation Tutor project at this school were organized and coordinated by the same teacher.

Each dyad met on Tuesday and Thursday for approximately one and one/half hours per week. All tutorial exchange between the pupils involved practice in reading, with the sixth, seventh, and eighth graders helping the second and fourth graders.

Similar to the test results from the reading resource room, the Operation Tutor data was exceptionally high. While the tutees were involved in the other Title I project at the school, the tutors were not - yet <u>their</u> gains were greater than either the tutees' or other Title I pupils.

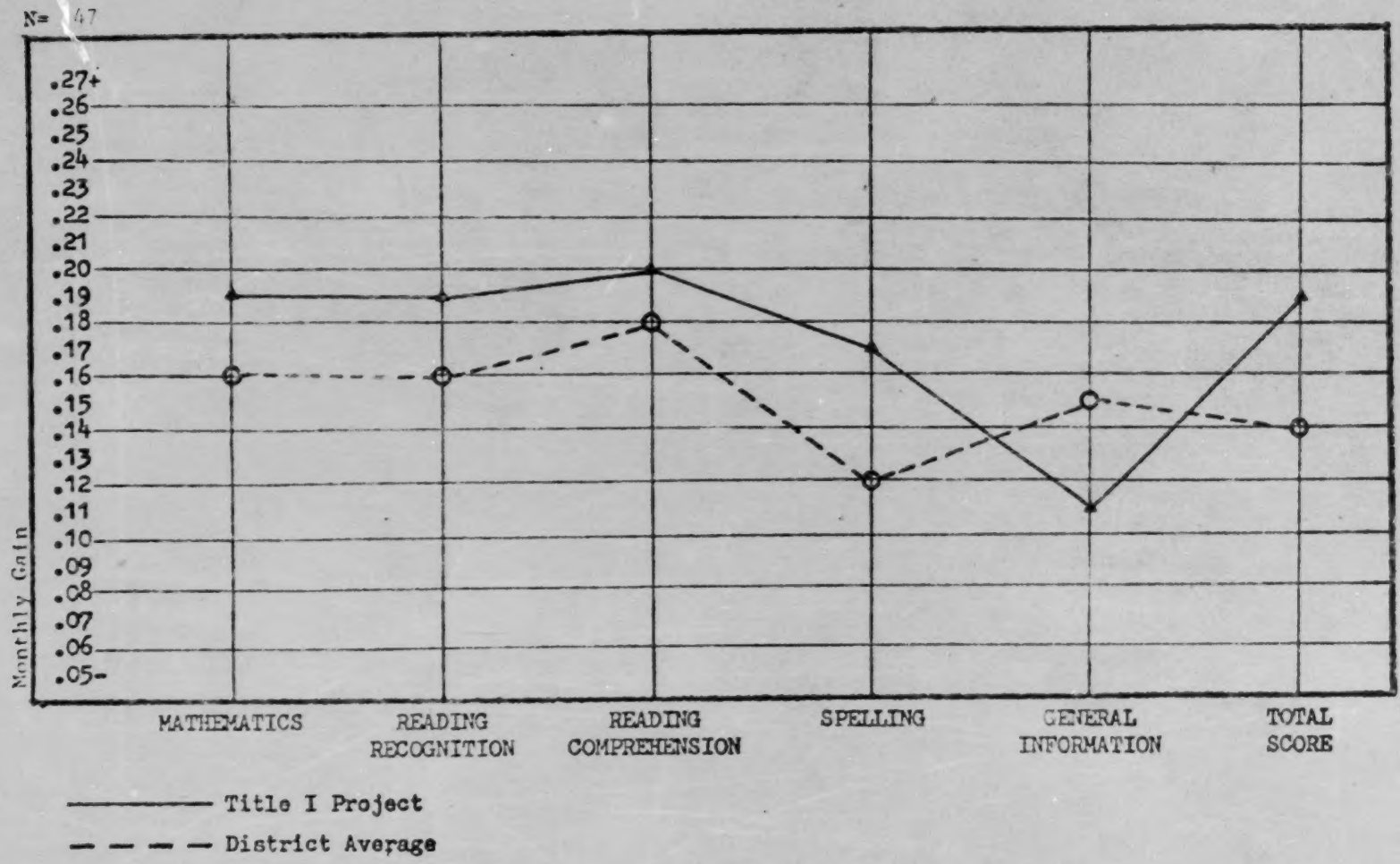
With such high scores between pre- and post-testing, all (100%) of the tutors and tutees achieved gains greater than their baseline rates, as well as similar gains above .1 per month objective criterion. The ATTENDANCE rate of these children declined during the year, although their report card LETTER GRADES substantially improved, as did their BEHAVIOR as estimated by the project teacher.

The tutorial program at Kealakehe School offered the means by which these pupils could improve their knowledge and reading abilities. Due to the extraordinarily high scores attained by them, information regarding their follow-up academic achievement during the 1974-1975 school year should be obtained and recorded and evaluated.

TABLE 23

PROJECT: Keaukaha Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



KEAUKAHA SCHOOL

OBJECTIVES: Refer to pages 66 and 67.

Reading:

The reading resource room at Keaukaha Elementary School served fifty pupils, from grades three through six, during the 1973-1974 school year. The project teacher, two full-time and one half-time EA's established a well organized and productive classroom procedure. The classroom furniture was adequately and conveniently arranged and the environment was conducive to quiet work.

With self-direction as an objective, the pupils entered the room at the beginning of each class period, picked up their folders to: a) determine their instructional tasks for the day, b) locate the materials which they needed, and c) go to a designated area of the room to begin working. Each EA worked with a small group (2 or 3) of children every period, providing them with appropriate instruction and immediate feedback to individual responses by the learners. At the end of the class period the children collected their folders and materials, returned them to their proper places, and were given appropriate recognition, including tangible reinforcements (points and stars) which they had earned.

Among the materials most commonly used for instruction were reading texts from Science Research Associates (SRA), Conquests In Reading, and various teacher-made response materials. Other reading texts were also used. The size of the project staff enabled directed teacher-to-pupil contact throughout the instructional process requiring less use of automated materials, devices and procedures.

A well developed approach to classroom management through systematic behavioral reinforcement was implemented by this reading project. Positive

reinforcement for academic and non-academic behavioral accomplishments included achievement, competitive, peer recognition, adult approval and primary reinforcers linked with a token reward-feedback system. Points and smile stickers were earned for attendance and doing good work, small prizes could be obtained for reading books, membership in special "clubs" was open to pupils who reached specific achievement criteria, and children with a designated amount of earned points were invited to participate in high strength activities such as popcorn parties held every two weeks. Despite the selective nature of the high strength activities, all pupils regularly participated in the activities throughout the year. Social reinforcement within the classroom was also strong, with teacher praises given, and earned award certificates taken home for recognition by parents. This project was apparently very successful in motivating the pupils to perform at a high level of academic productivity and in making the children feel intrinsically successful when they did perform.

The extent of parental involvement at Keaukaha Elementary School was among the highest in Hawaii District. The school was sufficiently small to allow the development of a close and personal relationship with the community. Conferences between the project teacher and parents of Title I pupils were frequent, with contact of some kind occurring approximately three times each month. Many parents appeared to be involved in or were aware of the Title I project and what it was doing for the children of Keaukaha.

This project met, surpassed, and almost doubled the objective criterion of .1 grade level gain per month in reading skills. In all subtests except GENERAL INFORMATION the children achieved gains considerably greater than the 1973-1974 Hawaii District average for Title I projects. The TOTAL SCORE had the highest reliable gain in the District, with the children more than doubling

their baseline learning rates while participating in the project. Eighty-one percent of these children were gradually reducing their need for remediation by learning at a faster rate than their non-Title I peers.

While the number of books which the pupils read decreased during the year, they also increased in length and difficulty. The prescribed reading instruction material for each child was individualized to match the pupils' previous achievement and increased ability. As these children achieved more academically, their BEHAVIOR (as judged by the project teacher) also improved substantially. The reading resource room at Keaukaha Elementary School was a successful and beneficial project for these fifty children. As a model for Title I projects throughout the State of Hawaii, this reading program developed within its pupils an ability to achieve, find success, and gain more from the academic experiences that await them in years to come.

Operation Tutor:

The Operation Tutor project at Keaukaha Elementary School was directed to thirteen pupils who were selected on the basis of their previous underachievement. The tutors, from grades five and six, and the tutees, from grades three and four, met together for approximately two and one-half hours each week, on Tuesdays, Wednesdays, and Thursdays. It is unique to the Keaukaha Elementary School tutorial project that the pupils did not meet during the school day, but after school was over. Children stayed after school <u>not</u> because it was required of them, and <u>not</u> for academic credit, but because they apparently <u>wanted</u> to learn more by helping each other - these children were obviously motivated very highly.

Tutoring in the subject of mathematics, the youngsters met in the room of the tutor supervisor (who was named "Teacher of the Year" by the Lehua (Hilo) Junior Chamber of Commerce during the past year). Parental involvement

in this project was excellent, with frequent help offered, high strength activities arranged, and transportation provided. Every Monday the tutor supervisor and parents took pupils - and only those pupils - who met the Keaukaha Operation Tutor attendance and work criteria, to the local community swimming pool. This was apparently a highly regarded activity for the pupils. Special awards and certificates of achievement were also given to pupils who regularly and faithfully attended the tutoring sessions and performed especially well. With such motivation to work from, the exceptional gains which the children made are fully justified.

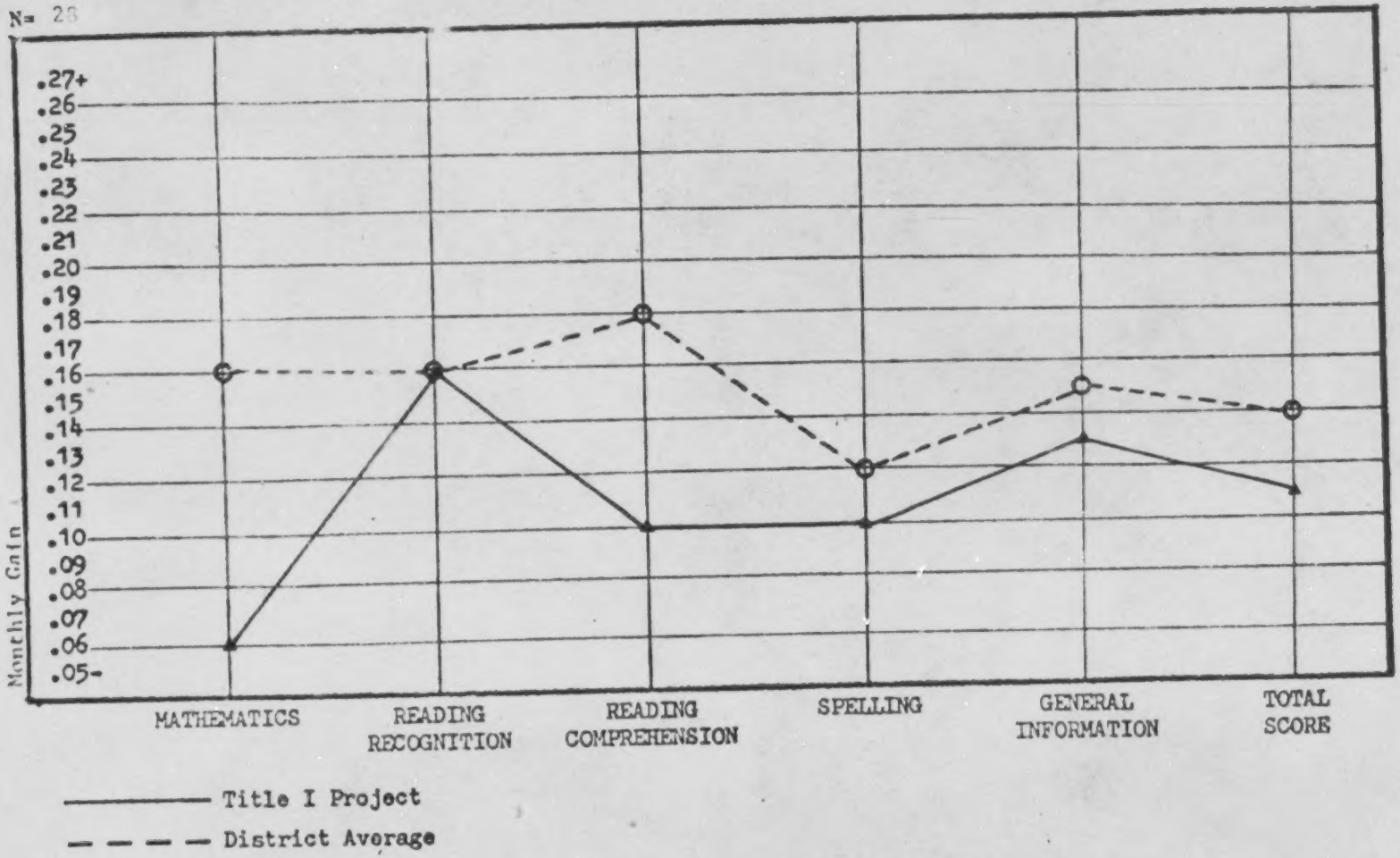
The Keaukaha Operation Tutor project met and surpassed all of its objectives, except for an increased ATTENDANCE rate of five percent. (The pupils' attendance increased by three percent, reaching ninety-four percent, and well above the Hawaii District Title I average.) The tutors achieved considerably more than did the tutees, who also achieved gains greater than the District average, the only exception being in READING COMPREHENSION and GENERAL INFORMATION. Eighty-five percent of these children attained learning rates above their baseline rates and more than the .1 average monthly gain, with all of them (100%) improving their letter grades in MATHEMATICS (the tutored subject). Their BEHAVIOR also showed improvement well above the average District rate.

This tutorial project can be appraised as an outstanding success for the children involved. It was organized and directed by a very competent teacher, the pupils were highly motivated toward greater achievement, and parental support was unusually good.

TABLE 24

PROJECT: Konawaena Elementary Reading Resource Room

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



KONAWAENA ELEMENTARY SCHOOL

Objectives for Reading Resource Room, 1973-1974
Revised: September 6, 1973.

OBJECTIVE:

KR#1: To effectively instruct the project pupils in reading skills so they achieve, on an average a learning rate greater than .1 average monthly gain in grade equivalent scores for reading recognition and reading comprehension between the pre- and post-tests.

KR#2: All pupils will show grade level gain of .70 or better in general reading skills (word attack and comprehension skills) by participating in the Remedial Reading Resource Center for a minimum of nine (9) consecutive months.

KR#3: The personal and interpersonal interactions and behaviors of the participating pupils in this project will, on an average, increase by 36% between the end of September, 1973, and the end of April, 1974.

KR#4: To increase the amount of enrichment reading done by the pupils as indicated by the number of high interest/leisure reading or non-text books read.

*Objective 4 is optional.

Objectives for Language Arts Enrichment, 1973-1974

OBJECTIVE:

KL#1: Eighty percent (80%) of the target pupils participating in the Language Arts Enrichment project will equal or surpass the school norm for reading readiness skills by the end of Term 3.

KL#2: Ninety percent (90%) of the children participating in this project will improve (or remain 100% accurate) their responses in each of the twelve categories of skills on the PRESCHOOL CHECKLIST FOR BASIC SKILLS, developed and provided by the Social Welfare Development and Research Center.

KL#3: Ninety Percent (90%) of the children will improve (or remain 100% accurate) their expressive language functioning by participating in the Language Arts Enrichment project for a minimum of six consecutive months during the 1973-1974 academic year.

KL#4: Attendance at school of the participating pupils in this project will, on an average, increase by five percent (5%) from the months of October through December, 1973, to the months of February through April, 1974.
Note: Refer to Objective RRR#2.

KL#5: The personal and interpersonal interactions and behaviors of the participating pupils in this project will, on an average, increase by 36% between the end of September, 1973, and the end of April, 1974.

Reading:

The reading resource room at Konawaena Elementary School was organized and directed by a project teacher. This was the only reading project in the District that did not receive the support of any educational assistant in the resource room. Thirty pupils from grades four, five, and six were served by this Title I project, as well as a few others who participated as tutors only. The classroom furniture and various materials in the room were well arranged, organized, and conveniently located for easy access. The schedule of activities and procedures the pupils followed were highly efficient and carefully managed. Individual pupil folders were located by the door and numerous color-coded work-stations and check-out points were presented throughout the room. The pupils demonstrated good self-direction and on-task behavior.

In addition to frequent use of SRA reading materials, the Specific Skills Series, and the EPC Audio Reading Progress system, a wide variety of teacher-made materials and other commercial reading texts and programs were available to the pupils. All materials were well designed, creative, and individually prescribed to meet each pupil's academic needs. In fact this project had the best array and variety of reading materials in the District, second only to the Hilo Reading Clinic. A Language Master, cassette tape recorder with listening posts, and a larger reel type tape recorder were present and generally in frequent use by the children. Good behavior by the pupils, their completion of academic tasks, and achievement which met the accuracy criterion, all earned points which could be "saved" or "spent" at the pupil's discretion.

Weekly "calendar contracts" were also used to stimulate achievement and measure individual academic performance. The pupil's accuracy levels and

progressive work through the assigned tasks were carefully and frequently monitored by the teacher. This reading resource room specifically utilized a tutorial component of instruction as a fundamental aspect of the total project design.

Parental involvement at Konawaena Elementary School was relatively small and apparently ineffective. Approximately fifteen percent of the parents and teachers belong to the PTA, and no scheduled parent-teacher conferences were held. The project teacher made occasional contact with her pupils' parents, yet the response from them appeared to be less influential to program development. The tendency for larger schools to have less parental involvement than smaller ones was again evident.

While the average monthly gains of Konawaena Elementary School's reading resource room were generally below the District average, the first objective for reading achievement greater than .1 per month was satisfied. READING COMPREHENSION gain was at the .1 per month level while the READING RECOGNITION gain was significantly above this criterion. The lack of significant parental involvement and support may have contributed to the less than District average level of performance. Yet while the monthly gains for this project were generally below the District Title I averages, the increased rate was well above the average, with only two other projects reaching a greater increase in grade equivalent scores. Improvement of pupil BEHAVIOR showed an equivalently high gain, and was again well above the District average.

Results from pre-post administration of the Metropolitan Reading Test, shown in Table 24-A, indicate that the objective of gaining .7 or more grade equivalent score achievement was not met. These gains are lower than those from the PIAT test because they were derived from a group test (school-wide), administered twelve months apart, probably with less motivation by the pupils to perform, and less reliability in the test results. Furthermore, reliability

TABLE 24-A

KONAWAENA ELEMENTARY READING RESOURCE ROOM

Results of Metropolitan Reading Test

GRADE LEVEL	Pretest Average Grade Equivalent Score		Posttest Average Grade Equivalent Score		Increase in Grade Equivalent Score		Average Monthly Gain in Grade Equivalent Score	
	Word Knowledge	Reading	Word Knowledge	Reading	Word Knowledge	Reading	Word Knowledge	Reading
4	2.7	2.4	3.3	3.0	.6	.6	.06	.06
5	2.7	2.9	3.2	3.5	.5	.6	.05	.06
6	3.4	3.6	4.1	4.2	.7	.6	.07	.06
AVERAGE (4.9)	2.9	2.9	3.5	3.5	.6	.6	.06	.06

between the subtests' scores from both tests has not been established by research, and direct comparability is not possible. (I.e., without sufficient reliability established it cannot be assumed that the two tests actually measure the same thing.)

The reading resource room at Konawaena Elementary School was a successful Title I program and good example for other projects to follow during the 1974-1975 school year. The classroom procedures and teacher-made materials were innovative, productive, and designed to enhance the self-direction of pupils. Other project teachers could benefit the development of their resource rooms by observing this program's structure, content, and design.

Language Arts Enrichment:

The Language Arts Enrichment project at Konawaena Elementary School consisted of three half-time EAs and thirty-one children in kindergarten and first grade. Each assistant was supervised by a different classroom teacher, and each worked with the same children every day throughout the school year. Approximately two/thirds of the children were kindergarteners and the remaining third from the first grade. No special or unusual materials, teaching procedures or systematic behavioral management techniques were observed in this project. The EAs generally took their ten or eleven pupils to a designated area of the classroom and worked with them privately during the class' regular language arts period. Using the same materials and supplies that were available throughout the classrooms, the assistants would offer more individual attention to these pupils while at the same time relieving the teacher of that responsibility.

The first objective of the Language Arts Enrichment project was that eighty percent of the pupils would equal or surpass the school norm in reading readiness skills by the end of the third term. The attainment of this objective

cannot be accurately assessed, however. While the norm for the reading level tests of the Reading Skills Continuum was established by testing all sixty-two kindergarten pupils, this was not done for the first graders. Norms for this grade level could not be determined since the project did not administer the tests to any first graders except the Title I pupils. How well these pupils did relative to other first graders cannot be known, and the percent of success of the total group cannot be established.

Nevertheless, from the May, 1974, testing, 100% of both Title I and non-Title I kindergarteners equalled or surpassed the criteria for Primary Level One. Similarly, forty-three percent of the Title I and ninety percent of the non-Title I children achieved the criteria for Primary Level Two, while no Title I pupils and 42% of the non-Title I pupils reached or surpassed Primary Level Three. The average norm achievement of all sixty-two pupils in kindergarten was 2.0 Levels, and the average norm score of the thirty-one Title I pupils was 1.2 Levels.

Comparative data from all kindergarteners indicate that the Title I pupils were approximately four months behind their non-Title I counterparts in achieving criterion scores on the Reading Skills Continuum. The trend of criterion achievement data from both kindergarten and first grade pupils generally indicate that Title I children gradually decreased the knowledge gap between themselves and other non-Title I pupils. Complete information, however, was not available to either confirm or disprove this assumption, and the first objective of this project was not achieved.

The second objective, regarding the pupils' pre-post improvement on the Preschool Checklist for Basic Skills, was satisfied. While no consistent pattern of achievement occurred, Table 24-B shows that the greatest improvement was in the more academic area and less from the categories of colors, shapes, and following directions. Almost one hundred percent of the pupils could name

TABLE 24-B

KONAWAENA ELEMENTARY LANGUAGE ARTS ENRICHMENT

Pre-Post Percent of Criterion Success Achieved by Pupils on the Preschool Checklist for Basic Skills

ITEM CRITERIA	PRETEST	POSTTEST	INCREASE
Colors Identified	68	93	25
Colors Named	67	91	24
Numbers Identified	71	98	27
Numbers Named	68	96	28
Shapes	71	91	20
Locomotive Skills	53	90	37
Other Skills	28	60	32
Upper Alphabet Identified	61	96	35
Upper Alphabet Named	57	95	38
Lower Alphabet Identified	48	92	44
Lower Alphabet Named	44	91	47
Follow Directions	74	86	12
AVERAGE	59	90	31

and identify all of the numbers (one through thirteen) and the letters of the alphabet.

The Test of Expressive Language (TEL) was administered to all of the Title I pupils in the LAE project at Konawaena during the Fall and again in the Spring. On the basis of the raw scores - possible high score of 75 correct responses - 96% of the pupils showed average gains of 12.9 points, moving from an average raw score of 49.9 (norm 103) in the pre-test to 62.9 (estimated norm 114-115) in the post-test. However, since the TEL was developed essentially for preschoolers the norms were established for children ranging in age from 30 to 70 months. Although all of the tested children were within this range for the pre-test, nearly all of the first graders and six of the kindergarten children were beyond age 70 months for the post-test with the average at 72 months. No valid norm scores could be established for these sixteen children.

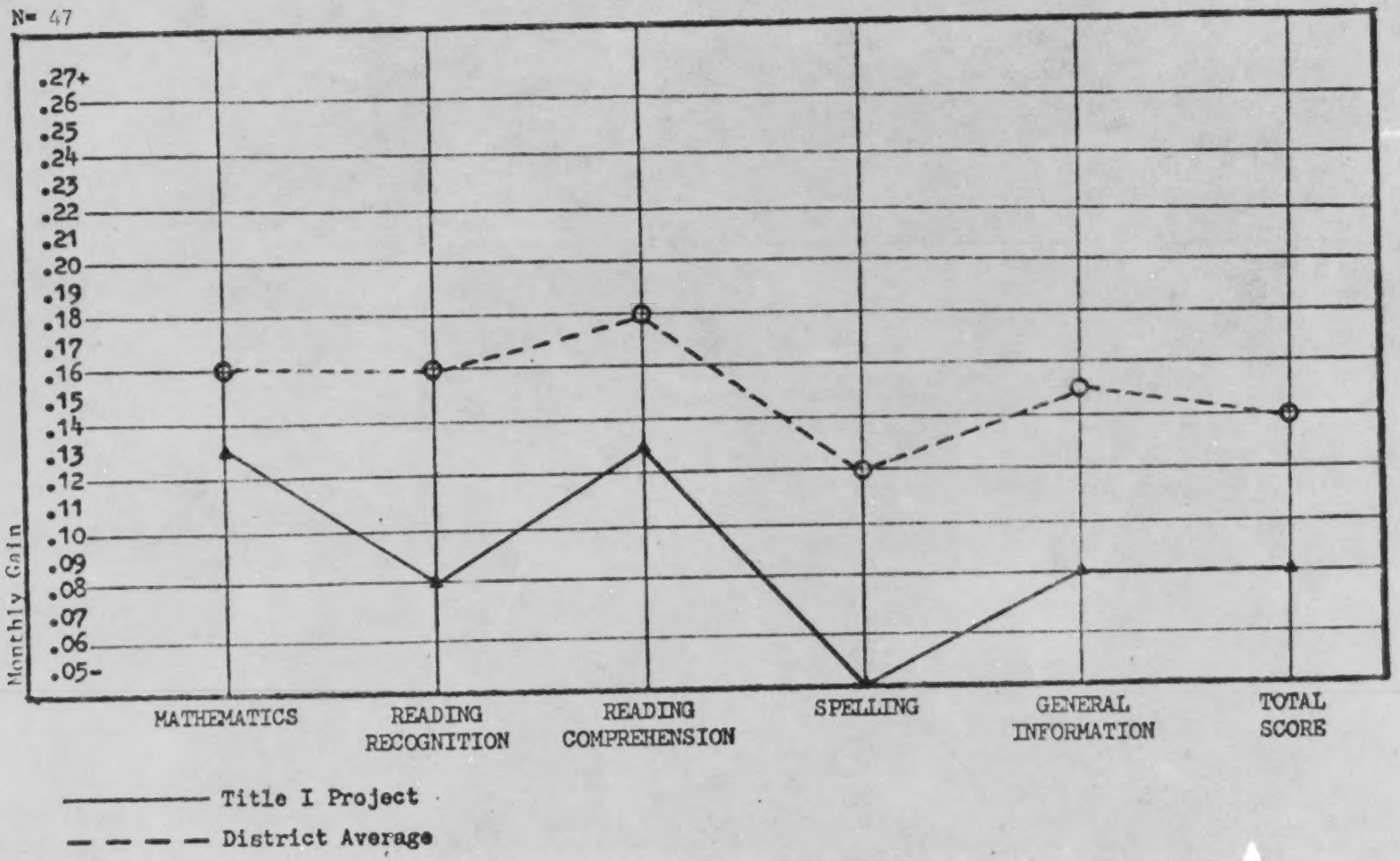
Eleven of the fourteen children (78.6%), where pre-post norm scores were available, increased an average of 11.5 points on the norm score. A highly speculative appraisal would indicate that this project met Objective KL#3 during the 1973-1974 school year.

The fourth objective was that the pupils' attendance rate from beginning to end of the school year would increase by five percent. It did not, but decreased by six percent, and the objective was not met. While this language arts enrichment project appeared to be beneficial to the children, it did not meet most of its original objectives established for them. Due to the nature of the program, and its resulting data, there were no means to determine if the thirty-one pupils achieved as much as - or more than - their non-Title I classmates. Nor could it be established whether the influence of this project was a primary cause contributing to the achievement that was made.

TABLE 25

PROJECT: Konawaena High & Intermediate Operation First Step

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



KONAWAENA HIGH & INTERMEDIATE SCHOOL

OBJECTIVES: Refer to pages 66 and 67.

Reading:

The reading resource room at Konawaena High and Intermediate School served seventy-one pupils who were taught by a project teacher and one full-time EA. The participants were from the seventh, eighth, and ninth grades, although seventy percent of them were ninth graders. (Note: Since feeder schools in Kona continue up to the eighth grade, there is a disproportionate influx of ninth graders each year.) The room was sufficiently large for the twelve to fifteen pupils arriving each period of the day. Initially, the tables and chairs were conventionally arranged in the middle of the room, with materials, teaching machines, and individual study carrels along three walls. Pictures, art work, schedules, and newspaper and magazine clippings were plentiful and attached to most walls. Their quantity may have also been somewhat distracting, especially for students who needed to concentrate or focus their attention toward academic work for very long periods at a time.

The noise level throughout the classroom was often noticeably high, a characteristic of teenagers which is not uncommon. The pupils were generally observed to be functioning on-task. While self-direction was seldom typical of the pupil's activities, they usually were occupied with some type of academic material.

Instructional materials most frequently used within the resource room included SRA, Trouble Shooter, and various magazines and short story books. Through the use of these materials the instruction tended to be somewhat individualized, yet greater precision with individual diagnosis and prescription would have helped to make the assigned tasks more appropriate to each pupil's needs and abilities. Used with increasing frequency throughout

the year were the Controlled Reader, Language Master, and a phonograph with listening posts. Such automated devices and materials appeared to have greater application during the second half of the school year, when a more efficient arrangement of tables and chairs was made within the room.

A motivational system based upon giving stars and points to pupils who attained the criteria for good behavior and academic performance was noted. The points earned were tabulated on a master listing of pupil names, being totalled and issued once each week. The pupils could then save or spend the points for privileges and small items. The entire system of reinforcement, however, appeared awkward to handle, indirect and delayed, and of generally slight effect. The association of successful achievement with the points earned, and these to the actual reinforcers, appeared vague and generalized. Tangible reinforcers such as the pens, pencils, and notebooks used did not appear to be rewarding to these underachieving and sometimes alienated young teenagers. The most obvious reinforcing event for these pupils was praise and positive recognition from the teacher, which was offered appropriately and very sincerely by her.

Like the elementary school, Konawaena High and Intermediate School had very limited parental involvement. Parental attendance at the PTA meetings was felt (by representative members of the school staff and parents) to be less than fifteen percent. No parent-teacher conferences were conducted, and little contact by the project teacher to the parents was made. The results of those communications which were made, including both formal and informal contact, were reported to be frustrating experiences. As one person close to this Title I program said, "Parents seem less interested in the progress of secondary age level students."

While the first objective of this resource room project was technically not met, the combined average gains from both reading subtests surpassed the

.1 per month level of Objective RRR#1. The gains achieved by each grade level of this project did not follow a consistent pattern, but did indicate that ninth graders (like kindergarten and first graders), who represented the outer limits of Title I emphasis during the past year, attained less academic success than did other grade levels.

Although the gains achieved by this reading program were relatively low by District-wide Title I standards, they did satisfy the objective of reading improvement, and helped the pupils to increase their learning rate (.07 per month) by one-half year, to an average of .12 monthly grade level gains. That is, these pupils achieved seven-tenths of a month for every month of the school year, at the beginning of the year; and 1.2 months per month achievement by the end of the year. By these atandards, the project was successful, and of considerable merit.

The number of pupils who achieved learning rates above their baseline rates (79%) was equivalent to the District Title I average. This project faced the challenge of working with over seventy students (most of whom were ninth graders), with a substitute teacher new to Title I procedures (and older pupils), and only one assistant. That it could maintain success on par with that of the entire District is commendable. No other Title I reading resource room in Hawaii District encountered comparable limitations or handicaps to its overall effectiveness. This project at Konawaena High and Intermediate School was of considerable and necessary benefit to the school in general, and especially to its participating pupils. Particular credit for these achievements rest with the teacher who exhibited dedicated efforts despite the limitations.

Operation Tutor:

The Operation Tutor project at Konawaena High and Intermediate School combined its resources and pupils with the elementary school and got off to

a late fall start. Although the program originally began with twenty-two pupils, only fifteen remained in the project throughout the year. The eight tutors were ninth and tenth graders, and the seven tutees from the fourth and seventh grades. The tutors, from the high school, and tutees, from the elementary school, met within different rooms of both schools throughout most of the day. Each dyad met for approximately three hours each week, with some engaged in reading activities and others in mathematics.

Communication was cited as a difficult problem between the tutor supervisor and the pupils of this rather complex project. A regular substitute teacher, the tutor supervisor met with the tutorial dyads within the school's library. The lack of privacy and limitations imposed upon accurate testing were considerable. The project was located within two large adjacent schools, with tutoring in reading and mathematics occurring in various classrooms. The coordination of the program (and supervision of these sessions) was difficult.

The average monthly gain scores represent the complexity and frequent confusion which was basic to this project. The gains, both high and low, fluctuate considerably between subtests, with both negative and extremely high gains. Neither tutors nor tutees reached the objective criteria, with all but one of their subtest scores being well below the District Title I average. The gains represented by the TOTAL SCORE of the PIAT and those represented by the District average differ considerably for this project, since thirty-two percent of the pupils who originally began with the program were not post-tested.

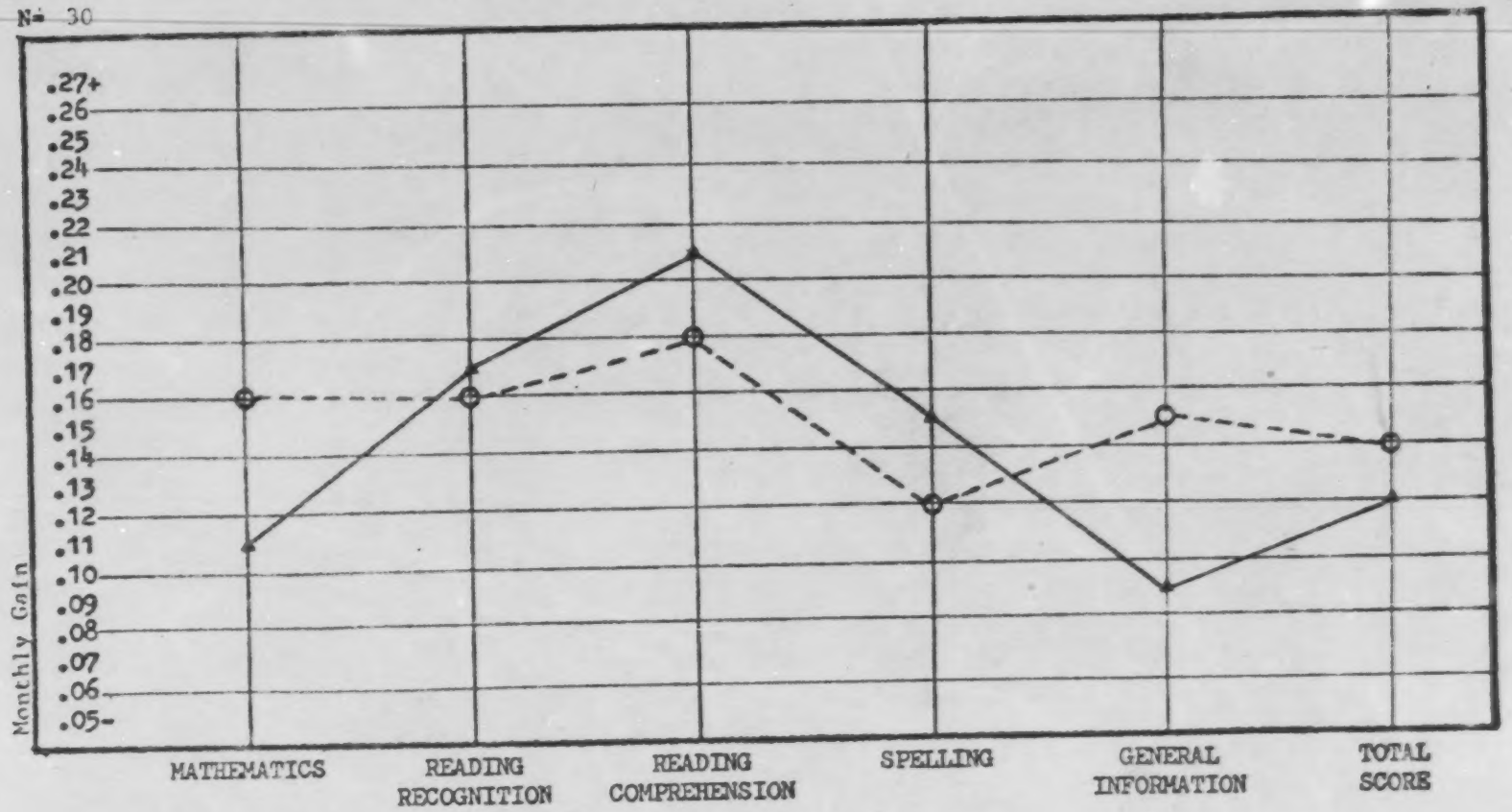
From these relatively low, fluctuating, and less reliable scores, the 53% of the pupils achieved learning rates above their baseline rates (as well as above the .1 per month objective criteria). The ATTENDANCE of these older children, which was initially the smallest rate of any project, also decreased by the end of the year. Although the tutor supervisor of this

Operation Tutor project appeared to be sincere, dedicated, and as motivated as any Title I tutor supervisor, the program as a whole appeared too complex and inefficient - involving too many classrooms, time periods, subject areas, and classroom teachers, and too little coordination, privacy for test administration, and teacher supervision. Yet the program was somewhat effective for many children, and beneficial to most. The handicaps to this project should be recognized and overcome next year when implemented into the daily instructional routine of the reading resource room at Konawaena High and Intermediate School.

TABLE 26

PROJECT: Naalehu Reading

Average Monthly Gain on PIAT Subtests from Title I Project and District Average



NAALEHU INTERMEDIATE AND ELEMENTARY SCHOOL

OBJECTIVES: Refer to page 66 and 67.

Reading:

The reading resource room at Naalehu School served thirty pupils who were selected on the basis of their underachievement in reading and language arts. The project teacher and two half-time EA's instructed these children, one-third of whom represented each of the second, third, and fourth grade levels. Sufficient facilities, classroom furniture, and shelves were provided within this project's unusually large classroom facility. With most of the instructional materials located along the walls, the center of academic work occurred around a few circular tables in the middle of the room.

Reading instruction primarily came from the use of SRA reading kits and Ideal cassette tapes, although these were augmented by some teacher-made materials and other commercially prepared texts. A record of completed work was maintained in each child's folder and conveniently located on a shelf next to the room's entry door. Academic tasks given to the pupils also included working with a Language Master, cassette tape recorder, and reel-to-reel recorder. Most classroom activity, however, appeared to be individual tasks, with direct assistance from either the project teacher or one of the aides.

A behavioral approach to classroom management, adopted by this project, consisted of establishing a small "token economy" system whereby the children could earn points and rewards in return for their work and achievement. More influential upon the pupils' academic behavior, however, was the use of social praise, classroom recognition, and reinforcing notes taken home to the parents. While the overall approach was generally effective, a more consistent, systematic, and precise application of contingency management techniques should be developed during the next school year.

Parental involvement at Naalehu School was very good throughout the 1973-1974 academic year. Participation by parents and teachers in the PTA was reported to be approximately thirty-five percent, and a monthly newsletter was issued to parents concerning events of the school. The project teacher had relatively frequent contact with the pupils' parents, with most communication occurring through use of the telephone and written reports of the child's progress. Frequent discussions were also held with the classroom teachers of the Title I pupils, providing the project teacher with information regarding pupil needs and their success in other subject areas.

Since all thirty pupils of this reading resource room were both pre- and post-tested, the TOTAL SCORE gain was equivalent to the average monthly gain. The first objective concerning grade level achievement was met and greatly surpassed. Only three other projects attained greater gains in READING RECOGNITION and READING COMPREHENSION, with the Naalehu project achieving its best gains in these two subtests. While the average gain of all pupils' indicates that three-tenths of a year's grade level gain was achieved beyond the full year's achievement, the academic success in reading was significantly greater. The .123 monthly gain from all subtests does not directly reflect the much higher .17 and .21 monthly gains in reading. The effect which this project had upon these thirty pupils' reading achievement (as the project was exclusively directed toward improving reading achievement) is more accurately demonstrated by these scores.

While the ATTENDANCE rate of pupils participating in this resource room decreased during the year (which was common to all projects), the rate could not have met the criteria of five percent improvement. The Naalehu project's attendance was, at the beginning and end of the year, greater than the District Title I average. The number of BOOKS READ, and the improvement of pupil

BEHAVIOR, increased during the school year. This data, however, is very subjective and not a reliable indicator of the academic success that was achieved.

The reading resource room at Naalehu School was successful in its objective of helping the thirty selected pupils to significantly improve their reading ability. The project teacher appeared dedicated and eager to do all that she could to develop the program and help each child to gain from the experience a better use of the English language. The materials, instructional approach, parental involvement, and underlying effort by the project teacher contributed to the advance reading skills achieved by these pupils.

Operation Tutor:

The Operation Tutor project at Naalehu School involved sixteen pupils, with the eight tutors coming from the classroom of the project's tutor supervisor. The dyads, from fourth, fifth, seventh, and eighth grades, worked in the areas of mathematics and reading, and met during the school day for approximately two hours each week. Starting rather late into the academic year, the project was eventually organized in such a way that the tutors and tutees met in three different rooms of the school.

The inconsistent nature of the data may be attributable to the project's lack of sufficient coordination, acceptance, or cooperation by the other classes of the school. How the tutors, for example, who were achieving 1.3 years grade equivalent gains at pre-test could achieve a loss in MATHEMATICS (a tutored subject), and over four years' gain in READING RECOGNITION (also a tutored subject), cannot be reasonably explained by the influence which this project may have had upon them. That these tutors also achieved only six-tenths of a year in READING COMPREHENSION (or seven times less than that of reading recognition) suggests that either their decoding skills were exceptionally

well taught, or that the test scores did not accurately represent their general ability level. Whether the objective criterion of .1 per month in the tutored subjects was met, or not met, cannot, therefore, be reliably determined.

The percent of all tutors and tutees who achieved learning rates above their baseline rates, and above the .1 per month objective criteria, was 38% and 25%, respectively. These were the lowest rates in the District. Yet the ATTENDANCE of these pupils increased substantially, and permitted only this project to meet the objective criterion of five percent increase. The pupils' LETTER GRADES in the tutored subjects also improved by more than 50%, and improvement in BEHAVIOR was also judged to have occurred during the year.

It cannot be accurately determined whether this tutorial project actually achieved for the pupils the objectives for which it was designed. The data are too inconsistent and subjective for concrete analysis. The tutorial experience which these pupils gained, however, was probably worthwhile for them.

CONCLUSIONS & RECOMMENDATIONS

Note: The many notable accomplishments and achievements of the Hawaii District ESEA Title I projects are summarized here. Many areas in need of improvement were identified and have been previously discussed with the personnel of the Hawaii District Office. A number of recommendations have already been implemented - at this writing - and the situations remedied or improved.

The 1973-1974 Hawaii District ESEA Title I program involved the following general statistics:

ESEA Title I Schools 13

No. of Component Projects 27
- Operation Tutor 11
- Reading Resource Rooms 10
- Remedial Support Services 3
- Preschools 2
- Clinic (Hilo Reading) 1

No. of personnel 63
- Full-time teachers 12*
- Full-time Counselor 1
- Part-time Teachers 18
- Full-time EAs 11
- Part-time EAs 21

*does not include 3 Hilo Reading Clinic teachers

No. of target pupils 962
- Operation Tutor 196
- Reading Resource Rooms 415
- Remedial Support Services 254
- Preschools 42
- Hilo Reading Clinic 55**

**not all pupils represented ESEA Title I schools

The nature and content of these component projects varied according to their purpose, overall design, and specific objectives. Alae Operation Live-In offered nutrition, recreation, and socialization to its pupils; the reading projects attempted to provide individualized instruction; two preschools supplied their children with the necessary educational foundations required for future academic success. The Operation Tutor projects promoted among its pupils - self-confidence and scholastic achievement, while the Hilo Reading Clinic focused its efforts upon concentrated clinical services for pupils with the greatest reading need in the Hilo area. Although different and varied, the goal of all twenty-seven projects was to provide underachieving children with the remedial instruction essential for their future success in school.

The reading projects' use of various instructional materials, teaching devices, and techniques of classroom management were generally adequate. The arrangement of materials, classroom furniture, and the utilization of available floor space, was most frequently efficient. In most reading projects individualized instruction was the focus and the classroom environment generally productive. Approximately eighty percent of Hawaii District's Title I pupils were learning more, and learning at a faster rate, than they had before the 1973-74 school year. The knowledge gap between Title I and non-Title I pupils was decreasing as these projects' remedial services helped the pupils to overcome their frustrations and academic limitations.

The reading teachers' past experiences, their willingness to ask questions and utilize innovative teaching approaches, and their desire to share ideas and learn from one another all contributed to the success of Hawaii District's Title I effort. Projects during the past academic year were more organized, more effective, and of more help to the pupils than they were during the 1972-73 academic year.

While the support service projects increased their pupils' rate of learning over the previous year, the reading resource rooms achieved much greater progress in the remediation of the pupils' academic deficiencies. These resource rooms provided their pupils with 1.7 year's gain in reading achievement. This was 0.7 a year by which these pupils narrowed the gap of ability between themselves and the academic norms established for the general school population.

PUPIL ELIGIBILITY, SELECTION & IDENTITY

Of the four hundred and fifteen Title I pupils participating in the reading resource rooms, 62% of them were boys and 38% were girls. The achievement attained by both groups was similar, with the males gaining .14 grade level per month and the females .15. A similar proportion between the sexes was found in the Operation Tutor projects, with 57% of them males and 43% females, again achieving .14 and .15 respectively. Although the girls achieved one-tenth of a year more than the boys, the difference was insufficient to establish specific conclusions regarding either the instruction or emphasis given to them.

More significant than the gains achieved by the two sexes was the fact that the projects had selected considerably more boys than girls. One hundred and twenty-three more boys were participating in the Title I projects than were girls. Their baseline learning rates, however, were almost identical, with .083 average monthly gain for the females and .087 gain for the males. The most probable explanation for the greater number of boys having been selected as Title I participants was that they may have been more frequently "referred" to the project teacher as "special cases" which needed "extra help" from additional school personnel. Extreme caution should be exercised into accepting pupils for Title I programs on the basis of such subjective referral.

The primary reason that more boys than girls were selected may have been that they were referred more often by the classroom teachers, and largely because of the pupils' misbehavior in class. Pupils with behavioral problems generally tend to be males, while girls who are equally underachieving do not as frequently exhibit inappropriate behaviors. Classroom behavior, however, is not a Title I criterion for selection into reading projects. All pupils should be selected only on the basis of quantitative and objective test data, and not from the teacher's subjective opinion, such as "the pupil is too active, has a short attention span, and I can't work with him."

Upon referral, potential pupils might be pretested - with a standard instrument such as the PIAT; ranked according to percentile scores; and selected on the sole basis of their academic achievement status within the school.

All schools are well represented by the special education and services program of Hawaii District which has, in the last year and a half, improved the scope of its activities and services to identified and referred pupils. Problem oriented youngsters with difficulties in addition to academic achievement should logically be referred to this program. This does not imply that unmotivated pupils with behavioral problems will not be considered by the Title I program. Where appropriate learning and structured instruction are essential, particularly in reading skills, referral to the Title I project may be the best option available for the youngsters.

Since referral to any out of the ordinary instructional program can imply a negative stigma upon the pupils' self-image, caution should also be exercised in identifying the reading resource room as the "remedial reading" class. This negative stigma and labeling can further be reduced if the project teacher can devote increasing amounts of time, when and where appropriate, providing follow-through instruction with the target pupils in their natural

or regular classroom placement. This, in addition to helping the target pupils maintaining their identities in the classroom mainstream, will enable other non-Title I pupils to perceive the reading teacher as a "special helper" to their regular teacher.

RECOMMENDATION #1: Screening and selection of pupils for the ESEA Title I projects should be based primarily on academic deficiency and not solely on behavioral deviancy.

RECOMMENDATION #2: Care should be exercised in establishing negative labels or stigma for pupils who are referred to the reading resource room.

RECOMMENDATION #3: Follow-through instructional services should be carried into the target pupils' regular classroom placement.

STANDARDIZING ACHIEVEMENT MEASURING INSTRUMENTS

The uniform adoption of the PIAT test instrument throughout Hawaii District during the 1973-74 academic year is commendable. The objective and consistent measurement of pupil achievement which this test provided should be continued throughout the coming years. Use of an objective and individually administered test among all projects, however, does not guarantee accurate test administration or equally reliable scores from all projects. No test is valid unless it is used properly, and no scores are reliable unless they are objectively and impartially recorded. Further attention and emphasis ought to be given to the accuracy of test administration, and to the recording and reporting of the data that arises from it. Test results must be an unbiased measure of each pupil's achievement.

To enable the establishment of a more refined and responsive individualized instructional program, the use of more consistent and reliable diagnostic and placement instruments should be considered. Except for the

Spache tests used by the Hilo Reading Clinic, no other project was observed using such systematic procedures. Many fine commercially prepared diagnostic and placement materials are available on the current market.

The use of validated diagnostic and placement instruments can verify the reliability of achievement test results which are questionable. Although further diagnostic and placement test results do not have to be considered for program evaluation purposes, its availability and use will enhance proper instructional prescriptions and placements.

Remedial instruction, by its very nature of the varying degrees of achievement among the pupils being taught, requires individualized instruction. In order that precise individualization of instruction can be maintained there must be constant - daily and/or weekly - assessments of each pupil's progress to the prescribed instructional program. No consistent and standardized progress checking system was noted among all of the Hawaii District ESEA Title I projects. (Konawaena Elementary School has, for the past several years, implemented a reading skills continua and is the only exception to this situation.) Serious consideration should be directed towards the development and adoption of a uniform hierarchy of instructional objectives for reading skills (or other appropriate academic skills) and appropriate classroom behavioral skills.

Criterion referenced tests accompanying such objectives have the advantage of 1) permitting direct interpretation of progress in terms of specified behavioral objectives; 2) facilitate individualized instruction on a consistent and systematic basis; 3) eliminate a situation where half or more of Hawaii's school children must always be below the median; 4) enable teachers to check on student progress at regular intervals; 5) eliminate pressures on teachers to "teach to the test" in order to have the pupils make a good showing; 6) enable teachers to compile a comprehensive

record of the pupils' development and clearly identify additional instruction required.

Since non-academic classroom behavioral objectives are unique to each locale, school and classroom, a hierarchy of such objectives should be developed individually by each project in concert with the general classroom expectations of teachers at the various schools. The availability of a hierarchy of non-academic classroom behavioral objectives will enable consistency among teachers (and EAs) to help children learn behavioral skills consistently and systematically.

RECOMMENDATION #4: Refine testing procedures for academic achievement test, i.e., PIAT, to improve the reliability of such results.

RECOMMENDATION #5: Identify and utilize valid diagnostic and placement tests to improve individualization of instruction and help validate achievement test results.

RECOMMENDATION #6: Seriously consider development and/or adoption of a hierarchy of reading skills objectives with accompanying criterion referenced tests (CRT) as an alternative achievement, diagnostic and placement test instrument.

LEISURE AND ENRICHMENT READING

Commensurate with the development of reading skills is the application and practice of the skills in relevant recreational and/or interest reading. The various reading projects attempted to measure changes in non-instructional reading by recording the number of books read by each pupil - such counts being taken during the fall and again in the spring and results compared. As the results indicated, a lack of clarity in the monitoring procedures resulted in unreliable scores.

In order that a more efficient monitoring system can be implemented for leisure and enrichment reading accomplishments by the Title I pupils, it is suggested that the reading teachers, in concert with their respective school librarians, develop graded lists of book titles. The list can include books which are or are not currently available at the school. Among the various criteria to be established for the preparation of such lists should be 1) the interest group targeted; 2) level of difficulty - decoding and/or comprehension; and 3) whether or not the book is accompanied by supplementary media presentations (filmstrips, tapes, records, etc.).

The task can be more conveniently performed and less duplicated if the various participants will divide the types/levels of books by publishers, etc., and a list exchange system be instituted and shared with all participants of the effort.

RECOMMENDATION #7: Establish a graded list of book titles for implementation of a systematic leisure-enrichment reading program.

TEACHER EFFECTIVENESS: EXPERIENCE AND TRAINING

The success of the ten reading resource rooms (and the remedial support service project at Kapiolani School) can be viewed from two perspectives. According to the PIAT test results, the six projects whose pupils achieved more academic success can be contrasted with the five projects whose pupils generally achieved less during the school year. Several unique characteristics are evident from each group, and their differences help to isolate those aspects which tend to result in the greater success of pupils. While this is "averaged" information and does not represent any specific project, its value and implications are considerable.

Among the more significant differences between the more successful and less successful of projects was that the first, which achieved .19 average monthly gains in reading, were instructed by teachers with averages of nearly one and a half years of previous experience in teaching remedial reading. The latter group of projects, which averaged .12 monthly gain, were taught by teachers with less than a quarter year of experience. (This was gained solely through a teacher training course.) Such a large difference would not likely occur unless the teacher's individual experiences (whether classroom experience, inservice training, or from outside consultation) were a fundamental cause which promoted better classroom management and effective pupil instruction. This effect is apparently related to the fact that only 33% of the teachers who instructed the more successful classes were new to Title I remedial reading projects, while 80% of the teachers with the less successful projects were inexperienced and unfamiliar to the Title I reading program.

Another distinctive difference between the projects whose pupils were more and less successful was that the teachers of the first group had taken, on an average, four and one/half university credits (approximately 1.5 courses) in remedial reading instruction. The teachers of the latter group, however, had been involved in an average of only one/half of one university course in this subject area. The assessment of these courses, and what each teacher obtained from them, is too subjective to accurately estimate. Yet the data indicates that educational experiences (and inservice training) by the teachers was of primary significance in the development of program effectiveness. Additional education or training which the teacher had evidently related to the project's success - and the achievement of those pupils participating in it. This information suggests the necessity for educational courses to be offered to all Title I teachers in Hawaii District. Such experiences would,

according to the data, help each project teacher to establish and implement more effective and beneficial remedial reading projects throughout the District.

Staff turn-overs at the various schools are expected to continue, particularly in light of the current situation where decreasing enrollments require adjustments to the school staffing patterns. The mere fact that a new teacher is assigned to teach reading in a Title I project does not imply that the project will be less successful. Neither does this mean that the assignment of an experienced and well trained teacher will guarantee academic successes. All new Title I reading teachers can be inspired and motivated towards greater experiences with concomitant training that will assure them of greater successes and results of their efforts. Stability of teaching assignments will enable this to occur.

RECOMMENDATION #8: Teacher assignments to ESEA Title I projects should be carefully screened and stabilized as much as possible. Experienced or inexperienced teachers should be afforded security in their assignments to enable them to make long range plans regarding self-improvements as well as improvements to their projects.

RECOMMENDATION #9: Formal and informal training opportunities (including classroom visitations) should be consistently offered to all experienced and new teachers involved in the ESEA Title I programs. Training plans should also include inputs from the teachers.

EDUCATIONAL ASSISTANTS AND REMEDIAL SUPPORT SERVICES

With two half-time positions equal to the work of one full-time educational assistant, the projects whose pupils were more successful were supported by an average of 1.1 assistants. Yet the lesser successful projects were each, on

an average, able to utilize 2.0 full time EAs. Although this fact may appear contradictory to the logical assumption, it suggests that the presence of more classroom educational assistants did not necessarily benefit pupils in need of supplemental educational services. The implication is not that more paraprofessional assistants are detrimental to projects, but that as projects enlarge and include more pupils and EAs, the teacher's supervision and direct influence upon them becomes complex. The project is then weakened and the pupils achieve less.

Contrarily, recent trends in educational technology suggest and have demonstrated that the inclusion of paraprofessional educational assistants greatly enhances individualization of instruction and effective teaching at a significantly less cost than the reduction of pupil-to-teacher ratio. Interviews conducted among ESEA Title I educational assistants indicated that very little effective and formal EA training had been conducted in the past. EA roles have been vague and subject to interpretation by the respective classroom teachers with assigned EA positions.

It appears that no specific teaching skills have been conveyed to EAs although nearly all of them were routinely assigned two to ten pupils each to "instruct" in basic reading and/or language arts skills. It was noted that in some instances EAs, rather than provide remedial support to the teachers, actually were responsible for the diagnosis, prescription and evaluation of Title I pupils. While a number of individual EAs with considerable experiences and natural teaching abilities were observed as being effective teachers, it should never have been intended that they replace classroom teachers - particularly in the crucial academic skills of language arts and/or reading for underachieving learners.

The presence of EAs in remedial support as well as reading resource projects can be significantly beneficial if 1) they are assigned specific roles;

2) taught skills in classroom management and various teaching strategies; and 3) appropriately recognized as paraprofessional teachers. Experience and well trained EAs can provide the necessary follow-through and individualized attention that regular professional teachers are unable to render.

In this regard, classroom teachers with assigned EA positions should also receive training in the appropriate utilization and task assignment of paraprofessional and/or volunteer classroom assistants.

With the necessary experiences and opportunities for formal training, some EAs can look forward toward eventual certification and recognition as professional teachers. Their combination of experience, training and natural ability to relate to the less fortunate and educationally deprived pupils may prove to be significant assets and attributes for their successful careers in education. This will result in a more efficient and effective educational program for all educationally deprived children.

RECOMMENDATION #10: Educational assistants should be given specific training in classroom management skills as well as techniques of instruction in various teaching strategies.

RECOMMENDATION #11: Classroom teachers with assigned EA or volunteer assistant positions should be provided specific training opportunities for the proper utilization and task assignment of such assistants.

MOTIVATION AND LEARNING THEORY

It was noted that nearly every reading resource room project in the Hawaii District featured - to varying degrees - some aspect of positive reinforcement for desirable classroom behaviors and/or academic achievement. Further, one of four common characteristics noted among the more successful. Operation Tutor projects were positive reinforcement for behavioral achievements. This

effort is praiseworthy and indicates the project teachers' general understanding and acceptance of the significance of positive consequences to learning objectives - academic or non-academic.

Careful observation among the various projects indicates, however, an undue amount of emphasis on tangible or object reinforcers such as edible treats, trinkets or toys and tokens/points continued throughout the entire year. While it is often very necessary to begin dispensing tangible rewards, to make positive reinforcers meaningful, it is crucial to the natural development and social growth of each learner that equal emphasis be placed on social reinforcers such as teacher praise and peer recognition. This can be done by pairing social reinforcement with the dispensing of tangible rewards - gradually diminishing the frequency of tangible rewards.

The immediate dispensing of positive consequences is often as equally crucial as the appropriateness of the rewards. Underachieving children often exhibit lack of motivation merely because they are - at a given point in time - unable to foresee the gratification which comes from successful accomplishment.

Another area of concern to be considered is the proper designation of behavioral objectives. Care should be exercised to recognize learning accomplishments rather than mere compliance or conformity to teacher expectations. Behaviors which are to be modeled or shaped and positively reinforced should be for the "good" of the learner rather than for the benefit or convenience of the teacher.

Finally, more systematic effort should be directed towards "catching the child being good" rather than "catching him being bad." Both teachers and EAs should constantly recognize and praise children who are on-task rather than ignore such desirable traits and attend to their misbehaviors.

RECOMMENDATION #12: Provide immediate and meaningful positive reinforcements for desirable task accomplishments. "Catch the child being good."

RECOMMENDATION #13: Pair tangible rewards with social reinforcement and diminish its frequency. Use "natural" consequences increasingly and to greater advantage.

RECOMMENDATION #14: Reinforce behaviors that are beneficial to the learner rather than convenience to the teacher.

PEER TUTORING: A TEACHING STRATEGY

An analysis among the results of various successful and lesser successful Operation Tutor projects reveals that the more effective and productive tutorial projects during the past school year had four common characteristics. These were a) simplicity in organization: tutoring in one subject area, in one place, and during a specific and consistent time of the day was more effective; b) appropriate ability levels of tutor and tutee: the tutors' ability was not significantly more (or less) than three grade levels above the tutees' for mutual learning to occur; c) positive reinforcement for achievement: as tutoring was entirely voluntary by the pupil, the accomplishments flourished when social praise, teacher recognition, or certificates of achievement was given; and d) relatively close supervision by a teacher: the pupils' meeting, sitting, and talking together did not automatically imply that a tutorial and mutually helpful relationship had been established.

Through implementation of a tutorial component under the direction of reading resource personnel the pupils will learn more academically, increase their self-confidence, and allow extra time for the project teacher and EAs to further diagnose, prescribe, and individualize pupil instruction. When other non-Title I pupils are included as tutors or tutees, the negative stigma usually associated with special classrooms will diminish.

RECOMMENDATION #15: Consider incorporation of Operation Tutor activities as an integral function of the reading resource room.

PRESCHOOL FOCUS

The Hawaii District ESEA Title I preschool projects have been indeed fortunate to be staffed by competent and concerned professional teachers. The measured results of both projects have been significantly high.

There appears to be, however, some lack of clarity of the focus and direction of preschool curricula. The stated and implied emphasis between the two Kona projects seem to indicate that while one is more concerned with the affective domain, the other has been concentrating on cognitive skills.

Since the children ultimately enter the same educational system, it is in order that some clarification in goals and objectives be agreed upon. Parents should be actively involved in such discussions and the Curriculum Guide For Early Childhood Education: Ages 3-8 with Emphasis on Ages 3-5, prepared by the DOE, should be presented as a basis by which the standards are established.

The subsequent development of specific goals and objectives which are observable and measurable will enhance the development of a better sequence and content of instruction. It is then that adequate preschool preparation can truely begin to reduce the gap between educationally advantaged and disadvantaged pupils of the schools. Consideration might also be given to the incorporation of the Preschool Basic Skills Checklist into a continua of affective and cognitive learning objectives.

RECOMMENDATION #16: Clarify focus and direction of preschool instruction. Establish goals and objectives which are observable and measurable.

RECOMMENDATION #17: Identify and prepare a continua of preschool learning objectives.

PARENT INVOLVEMENT

Parental involvement within the Title I projects was generally not significantly sufficient to affect the program outcome or increase pupil achievement. While the schools' principals, project teachers, and educational assistants were aware of the need and ultimate value of parental involvement, and strived to interest them in the programs, many expressed frustrations in their attempts to elicit the broader participation of the parents.

Several parent involvement meetings, in both Kona and Hilo, were conducted during the year by the Hawaii District Office. While these meetings were well attended by concerned parents, they did not - and could not - represent the nearly one thousand parents of Title I children in the district. Yet the effort by the District Office, principals, project teachers and some concerned parents to help more parents become concerned and be a positive influence in their children's educational endeavor was commendable. Even with such a tremendous task, the District's parental meetings, planning, organization, and communication with parents was successful. With the special help of project teachers during the coming school year the involvement of parents within each project should continue to increase.

All parents want to see their children succeed in learning. Since so many of the Title I pupils in Hawaii District achieved academic successes, this information, if conveyed to them in a personal and positive manner, will eventually and naturally result in positive responses by them. Positive feedback to parents must be frequent (weekly), immediate, in small dosages, and consistent. With sixty-three Title I personnel, this task is not as awesome and burdensome as it might seem. The parents of approximately 1,000 pupils can regularly be contacted by the Title I personnel on a hypothetical ratio of 1:16. This is a small investment of time when it is compared to the

high dividends it will pay to the community, the school, the family, and most important of all, the individual pupil.

RECOMMENDATION #18: Continue to exert all efforts to elicit parental involvement in their children's school affairs and particularly the ESEA Title I programs offered.

ESEA TITLE I (P.L. 89-10)
1973-1974 HAWAII DISTRICT STAFF

1. Administration Project
District Office (Hawaii)
P.O. Box 1922
Hilo, Hawaii 96720

Title I Project Coordinator	Laurence Capellas
Operation Tutor Coordinator	Donald Manalili
Steno II	Jeanette Teshima

2. Haaheo School
121 Haaheo Road
Hilo, Hawaii 96720
Phone: 935-1920

Principal	Sadaichi Kakugawa
Project	Reading Project
Reading Teacher	Carol Brown
Educational Assistant	Yaeko Miyasato (½T)
Project	Operation Tutor
Operation Tutor Supervisors	Saichi Maeda Tsuruyo Tanamachi

3. Hilo Reading Clinic
480 Waianuenue Avenue
Hilo, Hawaii 96720
Phone: 935-1782

Clinicians (DOE)	Ellen Watanabe Walnita Char Yuri Aoki
Educational Assistant	Ethel Nelson (FT)

4. Hilo Union School
506 Waianuenue Avenue
Hilo, Hawaii 96720
Phone: 935-1305

Principal	Ethel Yoshimasu
Project	Reading Project
Reading Teacher	Ruth Andrade
Educational Assistant	Janet Fujimoto (½T)
Project	Operation Tutor
Operation Tutor Supervisor	Maragret Blackmer

5. Holualoa School
P.O. Box 345
Holualoa, Kona, Hawaii 96725
Phone: 324-1255

Principal	Gilbert Hatter
Project	Reading Project
Reading Teacher	Heidi Paik
Educational Assistants	Matsuko Onaka (½T)
	Mae Tomita (½T)
	Katherine Kawahara (FT)
Clerk	Shizuko Kabei (Hrly)
Project	Pre-School
Pre-School Teacher	Florence Kawahara
Educational Assistant	Winona Oandasan (FT)
Clerk	Shizuko Kabei (Hrly)
Project	Operation Tutor
Operation Tutor Supervisor	Linda Cooperson

6. Honaunau School
P.O. Box 18
Honaunau, Kona, Hawaii 96726
Phone: 328-2212

Principal	Walter Kimura
Project	Operation Up-Lift
Project Teacher	Molly Nakano
Educational Assistants	Minnie Deniz (½T)
	Mary Cipriano (½T)
	Abelina Alcain (½T)
Clerk	Thelma Ushiroda (Hrly)
Project	Pre-School
Project Teacher	Patricia Magallanes
Educational Assistant	Sasae Murakami (FT)
Clerk	Thelma Ushiroda (Hrly)
Project	Operation Tutor
Operation Tutor Supervisor	Jenette Tomono

7. Hookena School
RR#1
P.O. Box 41
Captain Cook, Kona, Hawaii 96704
Phone: 328-2246

Principal	Charles Okino

Project . . . . . Operation Live-In (Alae)
Teacher Coordinator . . . . . Judy Hammond
Dorm Attendant . . . . . Julia Kaupu (½T)
Field Tutor . . . . . Diana Aki (Hrly)
Dorm Tutor . . . . . Albert Medeiros (Hrly)
Academic Tutor . . . . . Lillian Medeiros (Hrly)
Cook . . . . . Mary Jane Forcum (½T)
Clerk . . . . . Janice Kawabata (Hrly)

Project . . . . . Reading Project
Project Teacher . . . . . Mildred Shimakura
Educational Assistants . . . . . Mabel Medeiros (½T)
Stella Grace (½T)
Lillian Medeiros (½T)

Project . . . . . Operation Tutor
Operation Tutor Supervisor . . . . . Claude Reeves

8. Kapiolani School
966 Kilauea Avenue
Hilo, Hawaii 96720
Phone: 935-1617

Principal . . . . . Frances Sherrard

Project . . . . . Extra Effort
Counselor . . . . . Leanora Tong
Educational Assistants . . . . . Augustine Ebanez (FT)
Fujie Mukai (FT)
Roselyn Fujimoto (FT)
Tutors (PT) . . . . . Gwen Narimatsu
Karen Hara
Yvonne McRae
Karen Soken
Darlene Watanabe

9. Kealakehe School
P.O. Box 767
Kailua, Kona, Hawaii 96740
Phone: 329-3591

Principal . . . . . Dr. Edward Okada

Project . . . . . Reading Project
Project Teacher . . . . . Elsie Ohumukini
Educational Assistant . . . . . Anna Keanaaina (FT)

Project . . . . . Operation Tutor
Operation Tutor Supervisor . . . . . Elsie Ohumukini

10. Keaukaha School
240 Desha Avenue
Hilo, Hawaii 96720
Phone: 935-1959

Principal	Donna Saiki
Project	Reading Project
Reading Teacher	Barbara Jean Suga
Educational Assistants	Rhea Akoi (FT)
	Joanne Peralta (FT)
	Barbara Legaspi (½T)
Project	Operation Tutor
Operation Tutor Supervisor	Doreen Richardson

11. Konawaena Elementary School
P.O. Box 738
Kealakekua, Kona, Hawaii 96750
Phone: 323-3764

Principal	Kazumi Oshita
Project	Lift Off To Reading
Project Teacher	Elena Harlan
Educational Assistants	Satsuki Motoki (½T)
	Teruyo Nakamoto (½T)
	Doris Yamamoto (½T)

12. Konawaena High School
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Principal	Morris Kimura
Project	Operation First Step
Project Teacher	Joyce Newman
Educational Assistant	Gertrude Hayashida
Project	Operation Tutor
Operation Tutor Supervisor	Laura Sasaki

13. Naalehu School
P.O. Box A
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Principal	Marguerite Ooka

Project	Reading Project
Project Teacher	Wilma Kawasaka
Educational Assistants	Martha Takaki (½T)
	Janet Lui (½T)
Project	Operation Tutor
Operation Tutor Supervisor	Josephine DeMorales